

Fast Facts about Cigarette Smoking - Fact Sheet for Peer Counselors

What's in Cigarettes?

Cigarettes contain over 4000 chemicals, including:

- Formaldehyde - used to preserve dead body parts for autopsies
- Cyanide - found in rat poison
- Carbon Monoxide - found in car exhaust

Nicotine reaches the brain within 10 seconds after taking the first puff of a cigarette, and is the chemical in cigarettes that causes addiction. A study of teens shows that while 5% of high school seniors who smoke believe they will still be smoking in 2 years after graduation, 75% continue to smoke eight years later.

Conclusion: Smoking cigarettes creates a powerful addiction that becomes hard to break.

Smoking causes the following symptoms:

- Shortness of breath; Phlegm and mucous
- Increased susceptibility to colds and respiratory viruses
- Yellowed fingernails and teeth, wrinkled skin, and smelly clothes

Smoking increases risk for the following diseases:

- Certain Cancers - including cancers of the lung, larynx, oral cavity, bladder, kidney, pancreas, stomach & cervix. Tobacco use contributes to 35% of all cancers (excluding skin).
- Heart disease - tobacco use contributes to 20% of all heart disease.
- Stroke - tobacco use contributes to 20% of all strokes.
- Peptic Ulcer Disease
- Bronchitis and Respiratory Infections
- Poor pregnancy outcomes and low birth weight babies; Sudden Infant Death Syndrome (SIDS)

Conclusion: Cigarette smoking causes numerous symptoms and diseases that impact on daily functioning and overall well being..

Benefits of Smoking Cessation:

Within 20 minutes of smoking that last cigarette, the body begins a series of changes that continue for years (*Surgeon General's Report, 1988*):

- After 20 minutes - Blood pressure drops to a level close to that before the last cigarette.
- After 8 hours - Carbon monoxide level in blood drops to normal.
- After 24 hours - Chance of heart attack decreases.
- After 2 weeks - Circulation improves; lung function increases up to 30%
- In 1 - 9 months - Coughing, sinus congestion, fatigue and shortness of breath decrease. Cilia regain normal function in lungs, increasing ability to handle mucous, clean the lungs and reduce infection.

Conclusion: Quitting smoking at any age offers numerous health and quality of life benefits. It is never too late to quit smoking.

The Financial Cost of Smoking:

As of January 1, 1999, the average cost of a pack of cigarettes is, at minimum, \$3.00 per pack.

The cost of smoking one pack per day x \$3.00 per pack =

\$21.00 per week \$84.00 per month \$1008.00 per year

Conclusion: People who smoke spend a significant amount of money each day, month and year on cigarettes, often at the expense of other things they would like to buy for themselves or their family.

What you are really smoking!

ACETONE (poisonous solvent, nail polish remover)

ALKALOIDS

AMMONIA (poisonous gas, cleaning agent)

ARSENIC (poisonous metallic element)

BEESWAX

BUTANE

CARBON MONOXIDE (colorless, odorless poisonous chemical)

FORMALDEHYDE (embalming fluid)

GLYCEROL

LACTIC ACID (caustic agent)

LEAD (blue-gray metallic poisonous element)

METHANE

METHANOL

NICKEL

NICOTINE

NITRIC ACID

PHENOL (toilet bowl disinfectant)

POLONIUM 210 (nuclear)

QUINOLINE (specimen preservative)

RADON

SULFURIC ACID (powerful corrosive acid)

TURPENTINE

To get a listing of additives and ingredients per brand:

www.cctc.ca/bcreports/additive_index.htm

SMOKING AND ASSOCIATED CANCERS

LUNG CANCER
LARYNGEAL, ORAL, & ESOPHAGEAL CANCER
BLADDER & KIDNEY CANCER
PANCREATIC CANCER.
STOMACH CANCER
CERVICAL CANCER
ENDOMETRIAL CANCER

SMOKING AND ASSOCIATED DISEASES

CORONARY HEART DISEASE
CEREBROVASCULAR DISEASE
ATHEROSCLEROTIC PERIPHERAL VASCULAR
DISEASE
ATHEROSCLEROTIC AORTIC ANEURYSM
CHRONIC OBSTRUCTIVE PULMONARY DISEASE
PEPTIC ULCER
OSTEOPOROSIS
FERTILITY
LOW INFANT BIRTHWEIGHT
FETAL & PERINATAL MORTALITY
CONGENITAL MALFORMATIONS

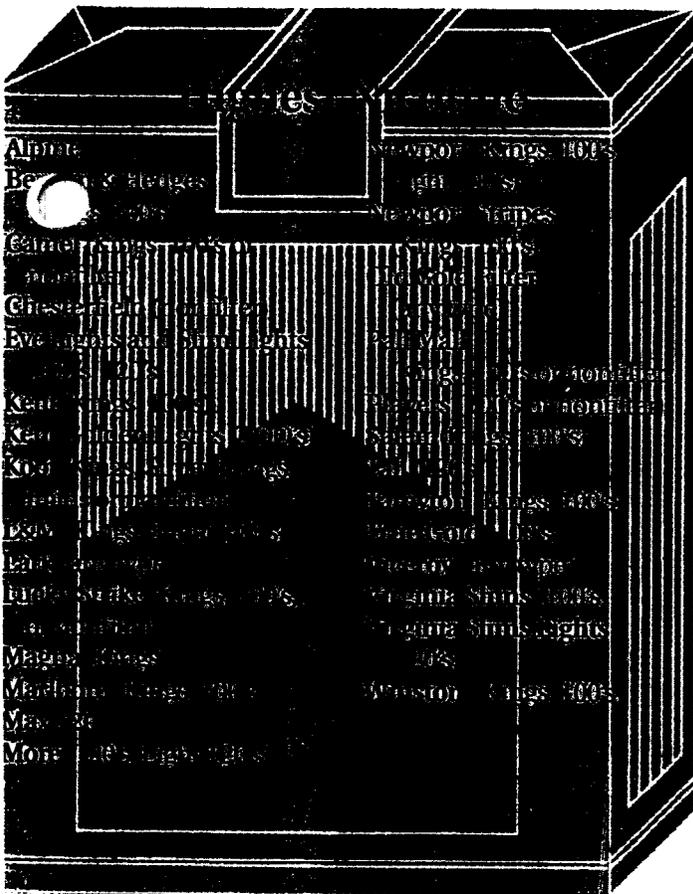
DISEASE/SYSTEM	LATE EFFECTS	SMOKING RELATED EFFECTS
CARDIOVASCULAR	X	X
FERTILITY	X	X
PREGNANCY OUTCOMES	X	X
GASTROINTESTINAL	X	X
GENITOURINARY	X	X
MUSCULOSKELETAL/GROWTH	X	X
PULMONARY	X	X
NEUROLOGIC	X	X
HEMATOLOGIC & IMMUNE	X	X
SECONDARY MALIGNANCIES	X	X

What is Nicotine Fading?

Nicotine fading lets you fade out some of your addiction to nicotine before you quit. Here's how it works.

Different brands of cigarettes give different amounts of nicotine. You can slowly cut your daily nicotine "dose" by switching to lower nicotine brands over one to two weeks before your quit date. Through small weekly drops in nicotine, you avoid a steep drop that can cause strong withdrawal symptoms when you quit. This makes quitting easier, especially if your usual brand is a MEDIUM or HIGH nicotine brand.

Find your usual brand (the one you smoke most often) on the lists below. It does not matter whether it is menthol.

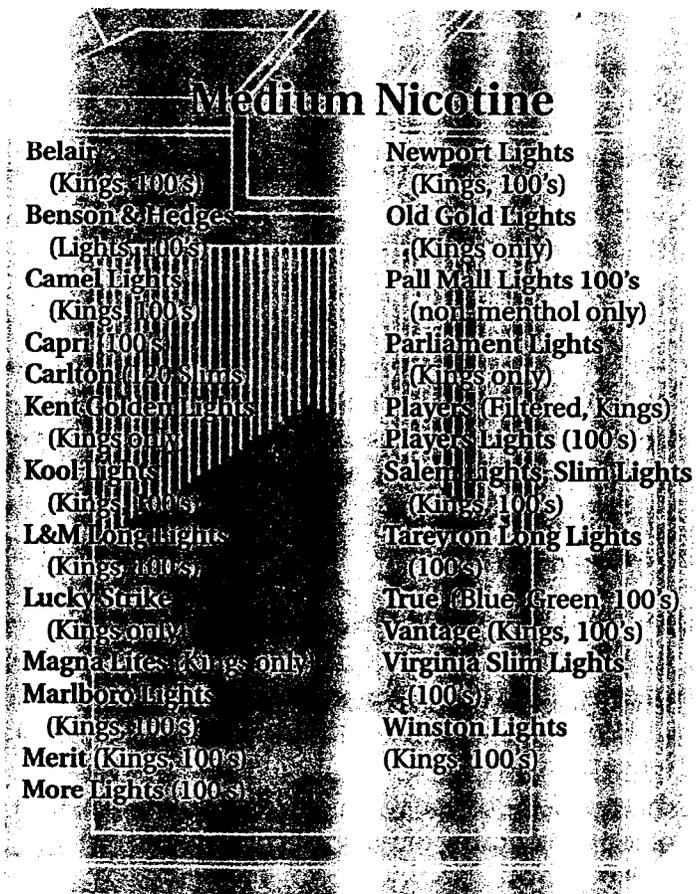


If you're smoking a HIGH NICOTINE brand, switch first to MEDIUM brand for one week then to any LOW brand for one week. You'll cut your nicotine dose by up to 1/3 each week. You'll be ready to quit after 2 weeks.

Circle the MEDIUM brand(s) you'll try.*

If your brand is not listed:

- Count it as a HIGH NICOTINE brand if it's unfiltered, or if it's filtered but does not contain the words "mild," "light" or "ultra light."
- Count it as a MEDIUM NICOTINE brand if it contains the words "mild" or "light."
- Count it as a LOW NICOTINE brand if it contains the words "extra mild," "ultra" or "ultra light."



Medium Nicotine

- | | |
|------------------------------------|--|
| Belair
(Kings, 100's) | Newport Lights
(Kings, 100's) |
| Benson & Hedges
(Lights, 100's) | Old Gold Lights
(Kings only) |
| Camel Lights
(Kings, 100's) | Pall Mall Lights 100's
(non-menthol only) |
| Capri 100's | Parliament Lights
(Kings only) |
| Carlton (20 Slims) | Player's (Filtered, Kings) |
| Kent Golden Lights
(Kings only) | Player's Lights (100's) |
| Kool Lights
(Kings, 100's) | Salem Lights Slim Lights
(Kings, 100's) |
| L&M Long Lights
(Kings, 100's) | Tareyton Long Lights
(100's) |
| Lucky Strike
(Kings only) | True (Blue, Green, 100's) |
| Magnalites (Kings only) | Vantage (Kings, 100's) |
| Marlboro Lights
(Kings, 100's) | Virginia Slim Lights
(100's) |
| Merit (Kings, 100's) | Winston Lights
(Kings, 100's) |
| More Lights (100's) | |

If you're smoking a MEDIUM NICOTINE brand, switch to any LOW brand for one week. You'll cut your nicotine dose by up to 1/3. You'll be ready to quit after one week.

Circle the LOW brand(s) you'll try.*

How much time will you need for your fading plan?

- Three weeks if you're starting with a **HIGH** nicotine brand.
- Two weeks if you're starting with a **MEDIUM** nicotine brand.
- One week if you're starting with a **LOW** nicotine brand.

Pick a date that gives you the time you need for nicotine fading.

Write your Quit Date on Pages 15 and 27.

DO

- Buy exactly the right brand when you switch. Copy the details from the list (such as regular length or 100's, lights or ultra lights).
- Try other brands in the same group if you don't like the first you try. You can smoke any of the MEDIUM or LOW brands on the list.
- Stop using all other forms of tobacco (pipes, cigars or smokeless) before you start to fade.
- Set a definite quit date—the goal of fading is **QUITTING!** The only health benefits come from quitting completely

DON'T

- Increase the number of cigarettes you smoke after you switch. Stick to the same daily number week to week
- Inhale more often or more deeply from lower nicotine brands.
- Cover the tiny air holes near the bottom of the filter with your fingers or your lips.
- Never go right from a **HIGH** to a **LOW** brand. If the drop in nicotine is too large, it can cause cravings and withdrawal.

Low Nicotine

**Benson & Hedges Ultra/
Deluxe Ultra Light (100's)**
Bright (Kings, 100's)
Carlton (Kings only)
Carlton (100's)
Doral Ultra Lights (100's)
Kent III (Kings only)
Kool Ultra (Kings only)
Kool Ultra (100's)
**Merit Ultra Lights
(Kings 100's)**
Now (Kings only)
Now (100 s)
**Salem Ultra Lights
(Kings, 100's)**

**Tareyton Lights
(Kings only)**
**Triumph
(Kings, 100's)**
**True
(Blue, Green,
Kings only)**
**Vantage Ultra Lights
(Kings, 100's)**
**Virginia Slims Ultra Lights
(100's)**
**Winston Ultra Lights
(Kings, 100's)**

If you're starting out with a **LOW NICOTINE** brand, you're ready to quit smoking now. But, you may want to switch to one of the underlined **ULTRA-LOW** brands for a week.

Circle the **LOW** or **ULTRA-LOW** brand(s) you'll try.*

* Be sure not to increase the amount you smoke or the amount you inhale from week to week.

PARTNERSHIP FOR HEALTH

MOTIVATIONAL INTERVIEWING FOR SMOKING CESSATION: FOR PATIENTS WHO AREN'T READY TO QUIT SMOKING

Patients in this stage are either not seriously thinking or might contemplate seriously thinking about quitting smoking in the next six months.

Step One: ADDRESS THE AGENDA

Express a desire to talk about their smoking.

I'd like to talk with you about your smoking.

Step Two: ASSESS THE PATIENT'S LEVEL OF PREPAREDNESS

- Readiness to change

Have you considered stopping smoking?

How much do you want to stop smoking right now, on a scale of 0-10?

- Confidence

If you were to make a change now, how confident are you that you would succeed, on a scale of 0-10?

- History of change efforts

Have you ever tried to quit smoking? What was that like?

- Knowledge of risks/problems/screening test

What do you know about the risks of smoking?

- Reasons for changing behavior

What are the reasons for your wanting to make a change right now?

What might get in the way of your being able to make this change?

What are you hoping to gain from this change?

PARTNERSHIP FOR HEALTH

COUNSELING FOR SMOKING CESSATION CHANGE: FOR PATIENTS WHO ARE READY TO QUIT SMOKING

Patients in this stage are intending to quit smoking in the next month and might have tried to quit in the past year.

Step One: ADDRESS THE AGENDA

Express a desire to talk about their smoking.

I'd like to talk with you about your smoking.

Step Two: ASSESS THE PATIENT'S LEVEL OF PREPAREDNESS

- Extent of readiness to change

How much do you want to stop smoking right now, on a scale of 0-10?

- Confidence

If you were to make a change now, how confident are you that you would succeed, on a scale of 0-10?

- History of change efforts

Have you ever tried to quit smoking? What was that like?

- Knowledge of risks/problems/screening test

What do you know about the risks of smoking?

- Reasons for changing behavior

What are the good things about making a change?

What are the not so good things about your smoking?

- Reasons for maintaining risk behavior

What are the good things about your smoking?

What are the not so good things about making a change?

Motivational Counseling

Goal

To help clients who are not ready to make healthy changes resolve ambivalence and move along the path to change when they seem "stuck" in patterns of behavior that are harmful or potentially harmful.

5 KEY PRINCIPLES

one

Express Empathy

Use open-ended questions and reflective listening to legitimize and express understanding of the patient's feelings.

Validate the patient's freedom to change or not change without judging the person.

Show respect by accepting, although not necessarily condoning, the person's resistance to change.

Acknowledge that ambivalence is a normal part of the change process. Express support and willingness to help patients when they are ready to change.



two

Develop Discrepancy

Raise awareness of consequences of present behavior.

Highlight any discrepancy between present behavior and important personal goals.

Allow the patient to present his/her own arguments for change.

four

Roll with Resistance

Resistance is a sign that the person has mixed feelings and is not ready to make a decision.

Clarify and explore how the patient is feeling.

Empathize with any difficulties the client expresses.

three

Avoid Argumentation

Arguments are counterproductive and often lead to more defensiveness.

Resistance is a signal to change strategies.

Labeling is not a prerequisite for change.

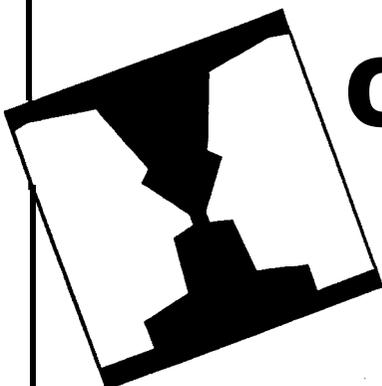
five

Support Self-Efficacy

Emphasize that it is up to the person to decide whether or not to make change.

Encourage the person to believe that he/she can change, if he/she really wants to.

Offer a range of alternative approaches and express optimism that one or some will help.



Counseling for Behavior Change

Goal

For clients who are ready to make healthy changes-to offer support and to help clients plan and develop skills.

5 KEY PRINCIPLES

one

Adults learn best when learning is self directed.

Empower the learner to identify his/her solutions.

Emphasize that the client is the best judge about what will work for him/her.

Serve as a facilitator and support for change rather than an expert.

two

People need the knowledge and confidence that the problem can be solved.

Offer information on approaches that others have used successfully.

Identify any prior successes with making positive changes.

three

Focus on specific behaviors.

Help the client set short term behavioral goals, with manageable steps.

Identify more constructive behaviors to replace less desirable ones.

Anticipate difficult situations and develop strategies to manage them.

four

Provide encouragement and support.

Use rewards to recognize progress.

Provide praise for positive effort.

Identify sources of support from family and friends and encourage client to use them.

five

People often make many attempts before a change is completely made.

Acknowledge that relapse is normal.

Reframe setbacks as learning experiences.



General strategy 1. Common elements of problem-solving/ skills-training smoking cessation treatments

Problem-solving treatment component	Examples
<p><i>Recognition of danger situations</i>— Identification of events, internal states, or activities that are thought to increase the risk of smoking or relapse.</p> <p><i>coping skills</i>—identification and practice of coping or problem-solving skills. Typically, these skills are intended to cope with danger situations.</p> <p><i>Basic information</i>—Provision of basic information about smoking and successful quitting.</p>	<ul style="list-style-type: none"> ■ Being around other smokers ■ Being under time pressure ■ Getting into an argument ■ Experiencing urges or negative moods ■ Drinking alcohol ■ Learning to anticipate and avoid danger situations ■ Learning cognitive strategies that will reduce negative moods ■ Accomplishing lifestyle changes that reduce stress, improve quality of life, or produce pleasure ■ Learning cognitive and behavioral activities that distract attention from smoking urges ■ The nature/timecourse of withdrawal ■ The addictive nature of smoking ■ The fact that any smoking (even a single puff) increases the likelihood of full relapse

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General strategy 2. Common elements of supportive smoking cessation treatments

Supportive treatment component	Examples
<p>Encourage the patient in the quit attempt.</p> <p>Communicate caring and concern.</p> <p>Encourage the patient to talk about the quitting process.</p> <p>Provide basic information about smoking and successful quitting</p>	<p>Note that effective cessation treatments are now available. Note that half of all people who have ever smoked, have now quit. Communicate belief in patient's ability to quit.</p> <p>Ask about how patient feels about quitting. Directly express concern and willingness to help. Be open to the patient's expression of fears of quitting, difficulties experienced, and ambivalent feelings.</p> <p>Ask about: Reasons the patient wants to quit Difficulties encountered while quitting Success the patient has achieved Concerns or worries about quitting</p> <p>The nature/timecourse of withdrawal The addictive nature of smoking The fact that any smoking (even a single puff) increases the likelihood of full relapse</p>

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General strategy 3. Suggestions on the clinical use of the nicotine patch

Patient selection	Appropriate as a primary pharmacotherapy for smoking cessation For suggestions regarding use in special populations, see General Strategy 4.																						
Precautions	<p><i>Pregnancy</i>—Pregnant smokers should first be encouraged to attempt cessation without pharmacologic treatment. The nicotine patch should be used during pregnancy only if the increased likelihood of smoking cessation, with its potential benefits, outweighs the risk of nicotine replacement and potential concomitant smoking. Similar factors should be considered in lactating women.</p> <p><i>Cardiovascular diseases</i>—Although not an independent risk factor for acute myocardial events, the nicotine patch should be used only after consideration of risks and benefits among particular cardiovascular patient groups: those in the immediate (within 4 weeks) postmyocardial infarction period, those with serious arrhythmias, and those with severe or worsening angina pectoris.</p> <p><i>Skin reactions</i>—up to 50% of patients using the nicotine patch will have a local skin reaction. Skin reactions are usually mild and self-limiting, but may worsen over the course of therapy. Local treatment with hydrocortisone cream (5%) or triamcinolone cream (.5%) and rotating patch sites may ameliorate such local reactions. In less than 5% of patients do such reactions require the discontinuation of nicotine patch treatment.</p>																						
Dosage	<p>Treatment of 8 weeks or less has been shown to be as efficacious as longer treatment periods (Fiore, Smith, Jorenby, et al., 1994). Based on this finding, the following treatment schedules are suggested as reasonable for most smokers. Clinicians should consult the package insert for other treatment suggestions. Finally, clinicians should consider individualizing treatment based on specific patient characteristics, such as previous experience with the patch, amount smoked, degree of addictiveness, etc.^a</p> <table border="1" data-bbox="483 1208 1198 1534"> <thead> <tr> <th>Brand</th> <th>Duration</th> <th>Dosage</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Nicoderm and Habitrol</td> <td>4 weeks</td> <td>21 mg/24 hours</td> </tr> <tr> <td>then 2 weeks</td> <td>14 mg/24 hours</td> </tr> <tr> <td>then 2 weeks</td> <td>7 mg/24 hours</td> </tr> <tr> <td rowspan="2">Prostep</td> <td>4 weeks</td> <td>22 mg/24 hours</td> </tr> <tr> <td>then 4 weeks</td> <td>11 mg/24 hours</td> </tr> <tr> <td rowspan="3">Nicotrol</td> <td>4 weeks</td> <td>15 mg/16 hours</td> </tr> <tr> <td>then 2 weeks</td> <td>10 mg/16 hours</td> </tr> <tr> <td>then 2 weeks</td> <td>5 mg/16 hours</td> </tr> </tbody> </table>	Brand	Duration	Dosage	Nicoderm and Habitrol	4 weeks	21 mg/24 hours	then 2 weeks	14 mg/24 hours	then 2 weeks	7 mg/24 hours	Prostep	4 weeks	22 mg/24 hours	then 4 weeks	11 mg/24 hours	Nicotrol	4 weeks	15 mg/16 hours	then 2 weeks	10 mg/16 hours	then 2 weeks	5 mg/16 hours
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	then 2 weeks	10 mg/16 hours																					
	then 2 weeks	5 mg/16 hours																					
Prescribing instructions	<p>No smoking while using the patch.</p> <p><i>Location</i>—At the start of each day, the patient should place a new patch on a relatively hairless location between the neck and waist.</p> <p><i>Activities</i>—No restrictions while using the patch.</p> <p><i>Time</i>—Patches should be applied as soon as patients waken on their quit day.</p>																						

^a These dosage recommendations are based on a review of the published research literature and do not necessarily conform to packet insert information

General strategy 4. Clinical guidelines for prescribing nicotine replacement products

<p>Who should receive nicotine replacement?</p>	<p>Available research shows that nicotine replacement generally increases rates of smoking cessation. <i>Therefore, except in the presence of serious medical precautions, the clinician should encourage the use of nicotine replacement with patients who smoke.</i> Little research is available on the use of nicotine replacement with light smokers (e.g., those smoking 10-15 cigarettes/day or less). If nicotine replacement is to be used with light smokers, a lower starting dose of the nicotine patch or nicotine gum should be considered.</p>
<p>Should nicotine replacement therapy be tailored to the individual smoker?</p>	<p>Research does not support the tailoring of nicotine patch therapy (except with light smokers as noted above). Patients should be prescribed the patch dosages outlined in General Strategy 3.</p> <p>Research supports tailoring nicotine gum treatment. Specifically, 4-mg gum, as opposed to 2-mg gum, can be used with patients who are highly dependent on nicotine (e.g., those smoking more than 20 cigarettes/day, those who smoke within 30 minutes of awakening, and those who report that it is difficult to refrain from smoking where it is forbidden; see Heatherton, Kozlowski, Frecker, et al., 1991). Clinicians may also recommend the higher gum dosage if patients request it or have failed to quit using the 2-mg gum.</p>
<p>Should patients be encouraged to use the nicotine patch or nicotine gum?</p>	<p>Although both pharmacotherapies are efficacious, nicotine patch therapy is preferable for routine clinical use. This preference is based on the following comparisons with nicotine gum therapy:</p> <ul style="list-style-type: none"> ■ Nicotine patch therapy is associated with fewer compliance problems that interfere with effective use. ■ Nicotine patch therapy requires less clinician time and effort to train patients in its effective use. <p>The following factors support the use of nicotine gum:</p> <ul style="list-style-type: none"> ■ Patient preference. ■ Previous failure with the nicotine patch. ■ Contraindications specific to nicotine patch use (e.g., severe skin reactions).

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General strategy 5. Suggestions for the clinical use of nicotine gum

Patient selection	Appropriate as a primary pharmacotherapy for smoking cessation, For suggestions regarding use in special populations, see General Strategy 4.
Precautions	<p><i>Pregnancy</i>—Pregnant smokers should first be encouraged to attempt cessation without pharmacologic treatment. Nicotine gum should be used during pregnancy only if the increased likelihood of smoking cessation, with its potential benefits, outweighs the risk of nicotine replacement and potential concomitant smoking.</p> <p><i>Cardiovascular diseases</i>—Although not an independent risk factor for acute myocardial events, nicotine gum should be used only after consideration of risks and benefits among particular cardiovascular patient groups: those in the immediate (within 4 weeks) postmyocardial infarction period, those with serious arrhythmias, and those with severe or worsening angina pectoris.</p> <p><i>Side effects</i>—Common side effects of nicotine chewing gum include mouth soreness, hiccups, dyspepsia, and jaw ache. These effects are generally mild and transient, and can often be alleviated by correcting the patients' chewing technique (see Prescribing instructions below).</p>
Dosage	Nicotine gum is available in 2-mg and 4-mg (per piece) doses. Patients should be prescribed the 2-mg gum except in special circumstances outlined in General Strategy 4. The gum is most commonly prescribed for the first few months of a quit attempt. Clinicians should tailor the duration of therapy to fit the needs of each patient. Patients using the 2-mg strength should use not more than 30 pieces/day, whereas those using the 4-mg strength should not exceed 20 pieces day. (Information on tailoring the dose of nicotine gum is presented in General Strategy 4.)
Prescribing instructions	<p>No smoking while using the gum.</p> <p><i>Chewing technique</i>—Gum should be chewed slowly until a “peppery” taste emerges, then “parked” between cheek and gum to facilitate nicotine absorption through the oral mucosa. Gum should be slowly and intermittently “chewed and parked” for about 30 minutes.</p> <p><i>Absorption</i>—Acidic beverages (e.g., coffee, juices, soft drinks) interfere with the buccal absorption of nicotine, so eating and drinking anything except water should be avoided for 15 minutes before and during chewing.</p> <p><i>Scheduling of dose</i>—Patients often do not use enough gum to get the maximum benefit: they chew too few pieces per day and they do not use the gum for a sufficient number of weeks. Instructions to chew the gum on a fixed schedule (at least one piece every 1-2 hours) for at least 1-3 months may be more beneficial than ad lib use.</p>

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General strategy 6. Components of clinical interventions designed to enhance motivation to quit smoking: the “4 Rs”

Relevance	Motivational information given to a patient has the greatest impact if it is relevant to a patient’s disease status, family or social situation (e.g., having children in the home), health concerns, age, gender, and other important patient characteristics (e.g., prior quitting experience).
Risks	<p>The clinician should ask the patient to identify the potential negative consequences of smoking. The clinician may suggest and highlight those that seem most relevant to the patient. The clinician should emphasize that smoking low-tar/low-nicotine cigarettes or use of other forms of tobacco (e.g., smokeless tobacco, cigars, pipes) will not eliminate these risks. Examples of risks follow:</p> <ul style="list-style-type: none"> ■ <i>Acute risks:</i> Shortness of breath, exacerbation of asthma, impotence, infertility, increased serum carbon monoxide. ■ <i>Long-term risks:</i> Heart attacks and strokes, lung and other cancers (larynx, oral cavity, pharynx, esophagus, pancreas, bladder, cervix, leukemia), chronic obstructive pulmonary diseases (chronic bronchitis and emphysema). ■ <i>Environmental risks:</i> Increased risk of lung cancer in spouse and children; higher rates of smoking by children of smokers; increased risk for SIDS, asthma, middle ear disease, and respiratory infections in children of smokers.
Rewards	<p>The clinician should ask the patient to identify the potential benefits of quitting smoking. The clinician may suggest and highlight those that seem most relevant to the patient. Examples of rewards follow:</p> <ul style="list-style-type: none"> Improved health Food will taste better Improved sense of smell Save money Feel better about yourself Home, car, breath will smell better Can stop worrying about quitting Set a good example for kids Have healthy babies and children Not worry about exposing others to smoke Feel better physically Freedom from addiction Perform better in sports
Repetition	The motivational intervention should be repeated every time an unmotivated patient visits the clinic setting.

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General strategy 7. Components of *minimal practice* relapse prevention interventions

1. Every ex-smoker undergoing relapse prevention should receive congratulations, encouragement, and a statement of concern on the part of the clinician that the patient remain abstinent.
2. The clinician should encourage the patient's active discussion of the topics listed below. The clinician should ask the patient open-ended questions designed to initiate the patient's problem solving on these topics (e.g., How has stopping smoking helped you?):
 - The benefits, including potential health benefits, the patient may derive from cessation.
 - Any success the patient has had in quitting (duration of abstinence, reduction in withdrawal, etc.).
 - The problems encountered or anticipated in maintaining abstinence (e.g., depression, weight gain).
 - Anticipated problems or threats to maintaining abstinence.

General strategy 8. Components of *prescriptive* relapse prevention interventions

During relapse prevention, an inquiry about problems encountered in maintaining abstinence might lead the clinician to make recommendations or offer treatment designed to address specific problems reported by the patient. Specific problems likely to be reported by patients and potential responses follow:

Weight gain—The clinician might make dietary, exercise, or lifestyle recommendations, or might refer the patient to a specialist or program. The patient can be reassured that some weight gain after quitting is common and that significant, dietary restrictions soon after quitting may be counterproductive.

Negative mood or depression—If significant, the clinician might prescribe appropriate medications or refer the patient to a specialist.

Prolonged withdrawal symptoms—If the patient reports prolonged craving or other withdrawal symptoms, the clinician might consider extending nicotine replacement therapy.

Lack of support for cessation—The clinician might schedule followup phone calls with the patient, help the patient identify sources of support within his/her environment, or refer the patient to an appropriate organization that offers cessation counseling or support.

Reprinted from: U.S. Department of Health and Human Services. Clinical Practice Guideline: Smoking Cessation. U.S. Department of Health and Human Services, Public Health Service, Agency for Health Care Policy and Research, Centers for Disease Control and Prevention. AHCPR Publication No. 96-0692, 1996.

General strategy 9. Clinical issues when assisting a pregnant patient in smoking cessation

Clinical issues	Rationale
Quit early in pregnancy if possible.	Early quitting provides the greatest benefit to the fetus.
Quit anytime during pregnancy.	Fetus benefits even when quitting later in pregnancy.
Stress early benefits to quitting.	Both woman and fetus will benefit immediately.
Provide pregnancy-related motivational messages.	These are associated with higher quit rates.
Be alert to patients' minimizing or denying tobacco use.	Minimizing or denying smoking is common among pregnant women who smoke.
Assess for relapse and use relapse prevention.	Postpartum relapse rates are high even if a woman maintains abstinence throughout pregnancy (see General Strategies 6 and 7). Relapse prevention may start during pregnancy.

Table 18. Efficacy of counseling intervention with pregnant smokers

Level of contact	Number of arms	Estimated odds ratio (95% C.I.)	Estimated cessation rate (95% C.I.)
No contact/usual care (reference group)	11	1.0	7.9
Counseling	8	2.0 (1.3-2.9)	14.7 (9.8-19.5)

Reprinted from: U.S. Department of Health and Human Services. Clinical Practice Guideline: Smoking Cessation. U.S. Department of Health and Human Services, Public Health Service, Agency for Health Care Policy and Research, Centers for Disease Control and Prevention. AHCPR Publication No. 96-0692, 1996.

Table 6. Efficacy of advice to quit by a clinician (n = 7 studies)

Advice	Number of arms	Estimated odds ratio (95% C.I.)	Estimated cessation rate (95% C.I.)
No advice to quit (reference group)	9	1.0	7.9
Physician advice to quit	10	1.3 (1.1-1.6)	10.2 (8.5-12.0)

Table 7. Variables associated with lower cessation rates^a

Variable	Examples
High nicotine dependence	Smoker reports severe withdrawal during previous quit attempts
Psychiatric comorbidity	Depression, schizophrenia, alcoholism, other chemical dependency
Low motivation	Smoker reports low motivation to quit
Low readiness to change	Smoker reports not being ready to quit
Low self-efficacy	Smoker reports perceived inability to quit
Environmental risks	Other smokers in the home/workplace
High stress level	Stressful life circumstances and/or recent, major life change (e.g., divorce, job change)

^a Although these variables are associated with relatively lower cessation rates, cessation treatment nevertheless remains effective in the presence of such variables.

Reprinted from: U.S. Department of Health and Human Services. Clinical Practice Guideline: Smoking Cessation. U.S. Department of Health and Human Services, Public Health Service. Agency for Health Care Policy and Research, Centers for Disease Control and Prevention. AHCPR Publication No. 96-0692, 1996.

Table 8. Efficacy of and estimated cessation rates for interventions delivered by various types of providers (*n* = 41 studies)

Type of provider	Number of arms	Estimated odds ratio (95% C.I.)	Estimated cessation rate (95% C.I.)
No provider (reference group)	38	1.0	8.2
Multiple providers	14	3.8 (2.6-5.6)	25.5 (18.1-32.7)
Nonmedical health care provider (psychologist, social worker, counselor)	23	1.8 (1.5-2.2)	14.1 (12.0-16.3)
Physician provider	36	1.5 (1.2-1.9)	12.0 (9.6-14.3)
Nonphysician medical health care provider (dentist, nurse, health counselor, pharmacist)	20	1.4 (1.1-1.8)	11.5 (9.0-14.0)

Reprinted from: U.S. Department of Health and Human Services. Clinical Practice Guideline: Smoking Cessation. U.S. Department of Health and Human Services, Public Health Service, Agency for Health Care Policy and Research, Centers for Disease Control and Prevention. AHCPR Publication No. 96-0692, 1996.

Basic Facts about Adult Survivors of Childhood Cancer

Fifty years ago, children who developed cancer rarely survived to adulthood. Today, the large majority of children with cancer or similar illnesses are cured by surgery, radiotherapy, chemotherapy, or a combination of these treatments. However, the treatments have side effects, some of which can last throughout a person's life.

Treatment Complications

Almost all complications of surgery are directly related to the parts of the body that were operated on. Surgery for cancer and similar illnesses removes not only the tumor, but nearby normal tissues. Removing these normal tissues may affect the function of important organs. Surgery also leaves scars.

Like surgery, the effects of radiotherapy are local. The body organs that are most at risk are those that were exposed to the radiation. Chemotherapy is the newest of the three treatments and is carried by the bloodstream to almost every part of the body. The greatest advantage of chemotherapy is that it travels through the body, so cancer cells can be destroyed even if they have left the original location of the cancer. For this reason, side effects of chemotherapy can affect many parts of the body. Many chemotherapy drugs are used today, and each has its own set of late effects or possible complications.

With each of these three types of treatments, the seriousness of any complications is related to the dose (how much was given) and the extent of therapy (how much of the body was treated). For example, radiation to a large part of the body or high doses of chemotherapy will be expected to produce more late effects. In addition, treatments given earlier in childhood are more likely to affect normal growth and development.

The impact of smoking

While it's true that smoking can have different effects on each person, smoking increases the risk of developing lung, oral, bladder, esophagus and cervical cancer. Smoking is an important issue for people who have survived childhood cancer to consider. Many people are not aware that they are at a greater risk for developing a new cancer, even if the first cancer was not in the lungs.

In addition, smoking can make the late effects of certain treatments more likely and more severe. Chemotherapy and radiation can both affect the function of the heart and can lead to future problems. Both therapies can also contribute to late effects involving the lungs and lung disease. Smoking can severely worsen the effects of these therapies, making problems with these body systems much more serious.

Treatment Advances

Many people who have had a childhood cancer or similar illness are very interested in the history of treatment and the advances that have been made in recent years.

The first effective chemotherapy treatment for childhood cancer was discovered in the 1940s by Dr. Sidney Farber. Things have come a long way in the last 50 years, with tremendous advances in the way cancer and similar illnesses are treated. Many important advances have been made by combining different types of treatments, combining different types of medications, and changing medication schedules.

Many cancers and similar illnesses that affect children are systemic, meaning they affect the entire body. Chemotherapy is often the mainstay of treatment (especially for advanced disease), but newer formulations are being developed that have fewer side effects. In addition, new strategies for delivering chemotherapy can help lessen side effects.

Advances are being made in the area of radiation treatment by limiting the amount of radiation and changing the way it is delivered, so it reaches the tumor in a more direct way. In addition, higher doses of chemotherapy with increased effectiveness may be used. Decreasing radiation may mean fewer problems with growth and radiated organs later on.

There is also special attention paid to the heart and lungs of children who are undergoing treatment for cancer or similar illnesses. Different scheduling of treatments and new combinations of drugs can protect the heart from treatment-related damage. The lungs and other organs are monitored before, during, and after treatment, and if possible radiation is limited. Doctors recognize the importance of the heart and lung systems - systems that are also very susceptible to the effects of smoking. Adults who had treatments that can affect their heart and lungs as children may be especially prone to the damaging effects of smoking.

**CHILDHOOD CANCER SURVIVOR STUDY
LATE EFFECTS OF TREATMENT FOR CHILDHOOD CANCERS
OUTLINED BY DISEASE AND TREATMENT**

LEUKEMIA

- Learning difficulties often occur in those who receive prophylactic cranial radiation. The effect is most dramatic in those receiving radiation before age 5, with those who received radiation before age 3 having the most profound effects.
- Those who received TBI (total body irradiation) are at higher risk for developing cataracts (often within 5 years of radiation).
- Girls who receive TBI are at risk for primary ovarian failure, e.g., amenorrhea and missing secondary sexual characteristics, as well as early menopause.
- Boys who receive TBI at risk for testicular failure resulting in infertility and the need for lifelong testosterone therapy.
- Those who receive radiation to the chest wall are at greater risk for pulmonary fibrosis with loss of lung volume, lung compliance and reduced diffusing capacity.
- Patients treated for Acute Lymphocytic Leukemia (ALL) with anthracyclines are at risk for developing cardiomyopathy associated with congestive heart failure. This risk increases with higher doses (between 400 and 550 mg/m²); however other cardiac problems, including, decreased ventricular mass, increased afterload, and impaired contractility. In addition, anthracyclines appear to impair cardiac muscle growth, especially when compared to the child's somatic growth. Radiation to the mediastinum also increases the risk of cardiotoxicity, both independently and synergistically with anthracyclines. Radiation induced complications include increased risk of myocardial infarction, valvular heart disease, premature atherosclerosis, and CAD.

CNS TUMORS

- Growth retardation occurs in roughly 50% of brain tumor survivors as a result of large doses of irradiation to the hypothalamus or pituitary gland. Patients who were treated with cranial radiation at younger ages, especially under age 5, are also more likely to experience decreased linear growth.
- Learning difficulties often occur in those who receive cranial radiation. The effect is most dramatic in those receiving radiation before age 5, with those who received radiation before age 3 having the most profound effects. Dose of radiation also has a direct impact on learning difficulties, with those receiving higher doses having serious impairment in learning. In addition to learning difficulties, survivors of brain tumors more often have subnormal IQs.
- Thyroid dysfunction, including hypothyroidism may occur following cranial radiation, and is more common when higher doses of radiation were used.

HODGKIN'S DISEASE

- Disfiguring soft tissue hypoplasia may result in the area of radiation, e.g., in the soft tissue of the neck or breast, and often becomes more apparent as the child grows.
- Hypothyroidism is the most common late effect of radiation to the neck area.

NON-HODGKIN'S LYMPHOMA

- Mediastinal radiation increases risk for cardiac damage and potentiates the risk of anthracycline induced cardiomyopathy.

WILMS' TUMOR

- Girls who receive abdominal radiation are at risk for primary ovarian failure, e.g., amenorrhea and missing secondary sexual characteristics, as well as early menopause.
- Boys who receive abdominal radiation are at risk for testicular failure resulting in infertility and the need for lifelong testosterone therapy.
- Hypertension may occur following abdominal radiation; however, it may take years to manifest itself.
- Pelvic radiation increases risk for hemorrhagic cystitis, bladder fibrosis, and a predisposition to urinary tract infections.

SOFT-TISSUE SARCOMAS AND BONE TUMORS

- The delayed consequences of radiation on the musculoskeletal system are directly related to the dose and age of the child at time of treatment, with higher doses and younger age resulting in more pronounced effects.
- Potential effects include: impaired bone growth, leg-length discrepancy, scoliosis, and short stature. Those treated with high doses **before** puberty are likely to have the greatest impairment, while those treated **during** puberty have slightly less impairment.
- Those treated with radiation to the head and neck area are at risk for poor dentition, including poor enamel and root formation in addition to gum disease and increase risk for cavities.

PSYCHOLOGICAL SEQUELAE

Those with more severe medical late effects have significantly worse adjustment (Greenberg, 1989). Those who were diagnosed with cancer at younger ages and those with strong family cohesion reported having better psychological adjustment.

Annotated Literature Review on the Late Effects Among Childhood Cancer Survivors

Global Summary

Long term survivorship among those who had a childhood cancer is a relatively new phenomenon. The literature available to date does not fully describe how surviving a childhood cancer may impact on the individual's decisions about health behaviors. Below is a summary of the current literature on late effects among childhood cancer survivors. It appears there is a wide range of experiences for each of the late effects reported. The use of diverse methodological approaches in the studies reviewed makes it difficult to compare study findings and thus limits our ability to interpret the meaning and implications of such findings. Nonetheless, certain variables seem to contribute to the array of experiences reported:

- **age at diagnosis**
- **type of cancer and treatment received**
- **family and peer support/communication during treatment**
- **residual physical impairments**

Physical and Psycho-Social Side Effects

A review of late effects of treatment among childhood cancer survivors shows that growth retardation occurs in roughly 50% of brain tumor survivors as a result of large doses of irradiation to the hypothalamus or pituitary gland (Galvin, 1994). Children receiving prophylactic radiation for acute leukemia are affected less often. Other physical sequelae of cancer treatment includes: scoliosis, dental problems including excess cavities, cardiomyopathy resulting from anthracyclines, especially when coupled with mediastinal irradiation, pulmonary fibrosis with loss of lung volume and compliance as a result of pulmonary radiation and chemotherapy such as Bleomycin and Vinblastine, malabsorption problems, gonadal dysfunction including azoospermia, ovarian failure and early menopause, and risk for second malignancies, especially within 20 years after the original diagnosis.

Kokkonen (1997) evaluated 27 patients ages 16-26 years who survived a childhood malignancy and were entered into a comprehensive tumor registry in Finland. Among the 27 survivors, 5 had musculoskeletal disorders, 5 had endocrinology disorders, 5 had sensory nerve abnormalities and 5 had fine motor abnormalities. Patients who had cancer before 5 years of age or had cranial irradiation had more significant impairments of memory and fine motor skills. Two patients suffered from severe depression and three others had anxiety disorders, however similar anxiety disorders were found in a matched control group. Socially, survivors were significantly different from the control group. Cancer survivors were significantly less likely to marry and be sexually active and were more likely to still live with their parents.

More than 300 survivors of childhood cancer who receive the Candlelighters Youth newsletter responded to a printed questionnaire in the newsletter (Lozowski, 1992). While findings may not be representative of survivors nationwide, since these survivors are connected to a peer support group and chose to respond to the questionnaire, they provide some insights into the issues that some survivors face. Thirty percent of respondents reported that their cancer experience had a positive developmental effect on them, 18% reported having a positive social impact, while 16% said they experienced negative health consequences, compared with their peers. Some of the

positive statements include “I grew up faster; I value life more; and I live for today because no one promised me tomorrow.” Negative comments included “I can’t play sports, I lack physical stamina, and I can’t remember that good.” When asked about concerns, 28% expressed worries about relapse, 31% worried about developing another cancer, yet fewer worried about minor illnesses such as colds, flu, and headaches. Another 20% worried about being able to have children and the cancer risk of their children. Eighty-four percent indicated they have used or would like to use more information about the cancer illness; roughly half have used or would like to use counseling about personal worries and learning new ways to cope. Seventy percent have met or would like to meet with other cancer patients, and this desire lasts beyond active treatment into the disease-free years. Similarly, in a phenomenologic study of breast cancer survivors, Pelusi (1997) identifies several themes, including survivors’ desire for finding resources for themselves, (since no one gave them information) and trying to maintain a healthier lifestyle, in order to take a more active role in caring for their mind, body and soul.

A review of the literature in the area of self-esteem and sense of self among survivors of childhood cancers (Woodgate and McClement, 1997) reveals that global self-esteem ratings are similar to normative values. A study of 62 survivors ages 6 - 18 were compared with 120 healthy children, and the majority of survivors reported feeling better about themselves with regard to intellectual and school functioning (however, patients with brain tumors were excluded from study enrollment), yet had lower self-esteem about their physical appearance and lower levels of perceived athletic abilities (Anholt, 1993; Madan-Swain, 1994). In a study comparing the functioning of 20 rural cancer survivors ages 6 - 16, the parents and teachers noted poorer social competence among the cancer survivors compared with controls; parents reported more behavior problems, whereas teachers noticed poorer school performance (Olson, 1995). Only half the children considered by their teachers to be behind one grade level or more were receiving additional educational help. Survivors with more severe medical late effects had significantly worse adjustment (Greenberg, 1989). Those who were diagnosed with cancer at younger ages and those with strong family cohesion reported having better psychological adjustment.

Fritz (1988) evaluated psychosocial sequelae among 52 survivors ages 7 - 21 who successfully completed treatment for a childhood malignancy at least two years earlier. Almost half saw themselves as moderately active physically, 28% thought they were more physically active and 25% saw themselves as sedentary relative to their peers. In comparison to before their illness, 28% felt they had become less active after illness, while 20% felt they became more active. Similarly, 20% became more socially involved after illness, while 23% became more solitary. Roughly 80% reported being able to talk with family members about issues related to cancer and 72% could talk with close friends. Depressive symptoms were found questionable in 14% and significant in 6%, while 80% had no symptoms. The strongest predictors of psychosocial outcome were communication patterns of family, availability of peer support during treatment, and residual physical handicap. Other illness-related variables such as length and severity of treatment, treatment-related complications, and prognosis were not found to be significant determinants of psychosocial outcome.

Boman (1995) evaluated psychological long-term coping with the experience of disease in 30 adult survivors of childhood cancer. Subjects were ages 18 - 29 years (mean = 22 years); age at diagnosis ranged from .7 - 15.6 years (mean = 9 years). Time elapsed since diagnosis averaged

13 years. Subjects were interviewed on 2 occasions about their history of illness, memories of family reactions, treatment procedures, peer relations, and adaptation to school, sports, and daily life. Subjects' reports were compared to a theoretical model based on psychoanalytical theory of integration of psychic trauma. Coping, in terms of illness integration, was divided into 3 categories; 40% were deemed to have "good coping," 33% fell into the "satisfactory coping," and 27% had "poor coping." While the prevalence of "poor coping" was higher in this study in comparison to others, the authors emphasize that others have found specific areas of extreme preoccupation, such as negative body image, yet still have satisfactory global adjustment scores.

Health Behaviors Among Survivors of Cancer

Survivors of childhood cancer have roughly the same smoking rates as their peers; those who had been diagnosed in recent years were less likely to be smokers, however the longer the duration since diagnosis, the more closely smoking rates approximated those of peers (Bolinger, 1994; Haupt, 1992). Once survivors initiated smoking, they were less likely to quit than their sibling counterparts. Self-esteem scores are reported to be lower in certain groups of survivors; those who receive central nervous system radiation tend to have lower intelligent quotients and are at increased risk for social isolation. These sub-groups of survivors may be at higher risk for using smoking as a way to mediate these effects.

Knowledge of Having a Cancer Diagnosis

Byrne, et al. (1989) interviewed 1928 adults who survived a childhood cancer, as identified from 5 tumor registries, to determine the extent of awareness of the cancer diagnosis. At the time of interview, subjects were at least 21 years of age (mean 32 years), were diagnosed before age 20 during 1945 - 1974, and survived at least 5 years from diagnosis. Survivors were told they were being contacted because they had a serious childhood illness requiring hospitalization. During the interview subjects were asked the following questions:

- "Did a doctor ever say that you had cancer?"
- "Did a doctor ever tell you that you had a benign tumor?"
- "What type of treatment did you receive?"

Among survivors of all types of cancer (excluding tumors of the brain and central nervous system), 14% responded that they had not had cancer. Among the 255 survivors of central nervous system tumors, 75% said they had not had "cancer." While not all of these tumors were classified as malignant, the low rate of reporting a cancer diagnosis among those who did have a malignant tumor was similar to those who did not. Those who had a central nervous system tumor, but did not have radiation therapy, were most likely to report not having had cancer.

Other factors that seem to contribute to this lack of awareness of having had cancer include:

- the survivor's race (non-whites were less likely to be aware of having had cancer,
- those whose parents were less educated,
- having been identified through the Connecticut Tumor Registry,
- those who were diagnosed with having a "tumor,"
- those born in earlier years and those who were younger when treated,
- those who had less aggressive treatments.

Advances in Treatment of Childhood Cancers

Many people who have had a childhood cancer or similar illness are interested in the history of treatment and the advances that have been made in recent years.

The first effective chemotherapy treatment for childhood cancer was discovered in the 1940s by Dr. Sidney Farber. Since then, tremendous improvements have been made in the survival of childhood cancers. Today, the average five-year survival rate following treatment for childhood cancer is 72%¹.

Some major improvements have come with the use of chemotherapy. Chemotherapy is carried by the bloodstream to almost every part of the body, which means that cancer cells can be destroyed even if they have left the original site of the cancer. In the treatment of solid tumors, improvements have come with the use of combination therapies, such as chemotherapy along with surgery or radiation therapy.

Over the last several years, there have also been breakthroughs in our understanding of the fundamental biology of cancer. Cancers arise as the result of the slow accumulation of changes in one of the trillions of cells in the body - in the instructions that guide the behavior of the cell. Scientists now know a tremendous amount about how genes can stimulate and suppress growth of cells. This understanding of the nature of cancer cells will guide future research in the effort to improve prevention, detection, and treatment of cancer.

Understanding the genes that are linked to cancer has also provided an effective approach to preventing, detecting and treating cancer. As our knowledge of human genetics progresses, our ability to diagnose and treat cancer will continue to grow.

Researchers and doctors place special emphasis on preserving the quality of life for childhood cancer patients. Limb-sparing surgery for many sarcomas has had a major impact, as has the development of drugs to protect key organs from damage caused by cancer drugs. Some additional improvements are discussed below.

Improvements in Chemotherapy

Many cancers and similar illnesses that affect children are systemic, meaning they affect the entire body. Chemotherapy is an important part of treatment, but newer formulations are being developed that have fewer side effects. In addition, new strategies for delivering chemotherapy can help lessen side effects. One example of this is using continuous infusions of a lower dose on a weekly schedule instead of a higher dose every 3 weeks.

Some cancer cells resist the effects of chemotherapy and radiation. Researchers are developing chemical compounds that make these cells more sensitive to conventional radiation and drug treatments. Researchers are also studying the action of cell protectors - compounds that protect normal tissue, thereby minimizing damage to healthy areas.

Another way of killing cancer cells or helping to make them more susceptible to radiation and chemotherapy is to heat them to temperatures above 109 degrees for one hour. This procedure is called hyperthermia and is currently being studied in clinical trials.

New biological therapies including interferons, interleukins, and vaccines are being developed to help stimulate the body's immune system to fight cancer and to help it recover more quickly from the effects of anti-cancer drugs. Researchers are hopeful that these new therapies will improve our ability to treat cancer.

Advances in Radiation Therapy

Advances are being made in the area of radiation treatment by limiting the amount of radiation and changing the way it is delivered. Decreasing radiation may mean fewer problems with the function of radiated organs later on.

Brachytherapy, also called Seed Radiation, is a new method of delivering radiation from within the body. It shortens treatment time and reduces the amount of tissue exposed to radiation. With this method, doctors insert several catheters, or needles, directly into the area of the tumor to be radiated; this limits the area of body exposed to radiation.

Bone marrow transplantation can be used to treat leukemia, lymphoma, Hodgkin's disease and other types of cancer that have not responded to traditional therapies. The bone marrow contains stem cells, which play a crucial role in the body. Stem cells are the beginnings of **all** of the cells in our bodies. By replacing these cells in the bone marrow, the body can rebuild itself after receiving very high amounts of radiation.

Here's how it works:

- before radiation, a matched donor is found or some of the patient's own marrow is removed and cleansed;
- total body irradiation or chemotherapy is given which kills cancer cells;
- this intensive radiation, done in conjunction with high dose chemotherapy, also destroys the patient's bone marrow;
- the marrow is replaced with marrow from a matched donor or the patient's own marrow and the body begins the process of rebuilding itself with healthy cells.

Stereotactic Radiosurgery is a method designed to deliver radiation doses to small treatment areas, thereby minimizing damage to nearby normal tissue. It is particularly useful in treating sensitive areas such as the brain.

Scientists are also trying to develop ways to detect damage to organs before symptoms appear. With this ability, physicians will be able to treat patients with the highest tolerable dose without unnecessarily damaging organs.

Improvements in Surgical Procedures

It used to be common for surgeons to amputate limbs or remove extra tissue around a tumor in order to be sure that cancer wouldn't come back. Today, more conservative operations are

performed, with surgeons removing as little tissue as possible and combining surgery with radiation therapy and sometimes chemotherapy to prevent recurrence of cancer. This has improved the quality of life for survivors of many types of cancer.

Some specific treatment advances in use today:

Side effects of treatment to the brain and nervous system are being reduced by refinements in radiation techniques - this means elimination of radiation altogether in lower-risk patients and in some cases the use of chemotherapy alone.

To protect the thyroid gland in patients being treated for Hodgkin's disease, some treatment centers recommend shielding the thyroid during radiation. Also, radiation is not used concurrently with iodide-containing contrast materials.

Progress is being made in ensuring proper growth in children by refining radiation techniques and limiting radiation doses. In some cases this is done by intensifying chemotherapeutic agents.

There is also special attention paid to the heart and lungs of children who are undergoing treatment for cancer or similar illnesses. Different scheduling of treatments and new combinations of drugs can protect the heart and the membranes around it from treatment-related damage. The lungs and other organs are monitored throughout treatment, and radiation is limited.

The heart and lung systems are important in maintaining good health – and they are also very susceptible to the effects of smoking. Adults who had treatments that affected their heart and lungs as children may be especially prone to the damaging effects of smoking.

A glimpse at future advances...

Anti-angiogenesis drugs

Cancers need to make more blood vessels (angiogenesis) in order to grow. Drugs that block angiogenesis have been identified and are being tested in laboratory animals and humans.

Monoclonal antibodies

Antibodies allow our bodies use to get rid of cancer cells. They act by attaching like a puzzle piece to certain types of proteins (antigens) which lie on the outer surface of cancer cells, thereby killing the cell. Scientists are experimenting with attaching anti-cancer drugs to antibodies which will then seek out the antigens on cancer cells. When the antibodies and anti-cancer drugs attach to the cancer cells, the cancer cells will be killed. The anti-cancer drugs only go to the cancerous cells and side effects are avoided.

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PARTNERSHIP FOR HEALTH
GOALS FOR COUNSELING CALLS 1 - 6

GOALS FOR COUNSELING CALL #1:

A. ADDRESS THE PARTICIPANT'S AGENDA: INTRODUCTION AND RAPPORT BUILDING

1. Introduce yourself and purpose of the study; Thank participant for taking part
2. Assess whether participant received and reviewed the binder with materials that we sent; if yes, discuss comments/reactions the participant has
3. Briefly describe your own cancer experience and assess the participant's cancer experience

B. ASSESS:

1. The participant's current health behaviors (i.e., behaviors the participant deems to be health-promoting and those that are not so healthy)
2. The participant's smoking status
3. The pros and cons of smoking
4. The participant's readiness to make changes in smoking

C. ADVISE:

1. Provide tailored advice, based on the participant's readiness to make changes

D. ASSIST:

1. Focus on addressing mediating mechanisms, based on stage of readiness:

PRECONTEMPLATION - (Cognitive) knowledge, attitudes and perceived risk

CONTEMPLATION - (Cognitive) knowledge, attitudes, perceived risk, pros and cons, barriers, self-efficacy

ACTION - (Cognitive) pros and cons, barriers, knowledge and attitudes, perceived risk, self-efficacy, (Behavioral) barriers & social support

2. Assist the participant in developing a realistic plan, based on readiness to change
3. Encourage the participant to read the materials we sent and to think about other information that might be helpful.

E. ARRANGE FOLLOW-UP:

1. Arrange to call participant at a mutually agreeable time to further discuss the participant's "change plan" and other information he or she would like to have

Inform participant that he or she can receive up to 6 calls over 4 months

GOALS FOR COUNSELING CALL #2 - 6:

A. ADDRESS THE PARTICIPANT'S AGENDA: CONTINUED RAPPORT BUILDING

1. Ask about hobbies or events that have occurred since last phone call.

B. ASSESS:

1. Additional thoughts/reactions he or she has had since last phone call
2. Changes the participant has made in smoking (or some other aspect of life that may affect smoking)
3. The participant's readiness to make (further) changes in smoking or other behavior

C. ASSIST:

1. Assist the participant in developing a realistic plan, based on readiness to change

Focus on addressing mediating mechanisms, based on stage of readiness:

PRECONTEMPLATION - (Cognitive) knowledge, attitudes and perceived risk

CONTEMPLATION - (Cognitive) knowledge, attitudes, perceived risk, pros and cons, barriers, self-efficacy

ACTION - (Cognitive) pros and cons, barriers, knowledge and attitudes, perceived risk, self-efficacy, (Behavioral) barriers & social support

2. Affirm: Acknowledge how difficult making change can be
3. Enhance the participant's confidence about making changes now, or in the future
4. Encourage the participant to read the materials we sent and to think about other information that might be helpful.

D. ADVISE

1. Advise participant to read the tailored materials we sent, and to consider making changes, based on readiness

E. ARRANGE FOLLOW-UP:

(FOR CALLS 2 - 5)

1. Arrange to call participant at a mutually agreeable time to further discuss the participant's "change plan" and other information he or she would like to have.

Remind participant that he or she can receive up to 6 calls over 4 months.

(FOR CALL 6)

2. Remind the participant that this is the last phone call and help the participant identify other organizations and community resources (including the primary care provider) that can help to support his or her effort toward change.

**PARTNERSHIP FOR HEALTH
MOTIVATIONAL INTERVENTION PROTOCOL
INTERVENTION PHONE CALL #1**

DRAFT

A. ADDRESS THE AGENDA: INTRODUCTION AND RAPPORT BUILDING

1. INTRODUCE YOURSELF AND THE PARTNERSHIP FOR HEALTH STUDY

Describe purpose and length of phone call; Ask if this is a good time to talk

- a) **If no**, schedule another time to call and check that this is the best phone number to call.
- b) **If yes**, continue with protocol.

Example:

"Hi may I please speak with _____ (participant's name). My name is _____ (counselor's name) from the Partnership for Health Study. You had agreed to take part in our new project about health behaviors, and recently completed a questionnaire interview over the phone... how did that go? I'm calling to let you know that you have been selected to receive some additional phone calls so that we can learn more about various health habits among survivors who participate in the Long Term Follow-Up Study. This phone call might take about 20 - 30 minutes... is this an okay time to talk?"

If no: Schedule another time that is mutually agreeable. Send appointment card for next call.

If yes: Continue with protocol as follows.

The information you provided will help us develop some quality health promotion programs. In addition, we'd like to offer you specific health information that you expressed interest in when we asked you the survey questions.

2. REVIEW PERSONALIZED HEALTH PROFILE

We recently sent you a binder with a personalized health profile that summarizes your thoughts about smoking and other health behaviors. Do you remember seeing it?

If yes: Did you have a chance to review it? What did you think of it? Did it accurately describe where you are right now? Do you have any questions about it? Was any of the information surprising or new to you?

If no: I'd be happy to send you another, if that's okay.

I noticed from your health profile that you expressed interest in _____ (note the health topics from the report). I have some written information on those topics and would be happy to send it to you, if you like. Is there anything else you were curious about?

3. DESCRIBE YOUR CANCER EXPERIENCE AND LEARN MORE ABOUT THE PARTICIPANT'S

To let you know a little bit about me, my name is _____ and I work at the Dana Farber Cancer Institute. I had _____ (type of cancer or leukemia) when I was _____ (yrs old) and was treated with _____ (types of therapy), and am currently feeling _____ and doing _____. I was wondering if you could tell me more about the illness that you had as a child that made you eligible for the Long Term Follow-Up Study.

Document participant's description of childhood illness **using their words**. More specifically, document whether the illness is referred to as a cancer, tumor, by the diagnosis, or other description. If participants do not seem to be recalling their cancer experience, probe to see if they remember (or have been told by their parents about) ever having an illness as a child that required some kind of surgery or other treatment.

Thanks for sharing this information with me. I now have a better understanding of your health background. To help me better understand more about your current health, I wonder if you could begin by telling me more about the kinds of things you do that you believe affect your health. Most of us do things that we think are good for our health, but we also do things that may not be so good for us.

B. ASSESS:

1. ASSESS CURRENT HEALTH BEHAVIORS

(List the healthy and harmful behaviors on the *Health Behaviors and Decision Making Worksheet*)

“Let’s start with the things you are already doing to keep you healthy or to improve your health. You mentioned in your questionnaire that you are doing (list); Tell me more about that.

Acknowledge the healthy behaviors listed in the personalized health profile and probe for more.

Now what about things you do that may be harmful or not so healthy for you. Acknowledge those noted in the personalized health profile and probe for more.

Summarize the healthy and not so healthy behaviors discussed above. Note areas of discrepancy between health values and current behaviors.

If participant acknowledges smoking: “I’m curious to learn more about your smoking.”

If participant does not list smoking above: “One of the behaviors we’re trying to learn more about is smoking. I was curious about whether or not you smoke any cigarettes...”

2. ASSESS SMOKING STATUS

1. How much participant smokes each day and for how long he or she has been smoking.

“From the information you gave us, it looks like you smoke _____ # cigarettes/day... is this still the case?” (If participant is no longer smoking, find out how much he/she used to smoke and when he/she quit.)

2. Who else in the family or household smokes.

3. Participant’s knowledge about his/her personal health risks of **smoking**.

“What have you heard about the health risks of smoking?”

4. Participant’s knowledge about the health risks of **second-hand smoke**.

“What do you know about the health risks of second-hand smoke?”

5. What motivated the participant to begin smoking.

*“I’m wondering what made you decide to start smoking?
How has your past illness affected your decision?”*

6. If the participant has ever thought about or tried to stop smoking.

“Have you ever thought about or have tried to stop smoking at some point in the past?”

7. If participant wants more information about the health risks of smoking or second-hand smoke.

B3. Assess The Pros & Cons Of Smoking - (Complete Health Behaviors & Decision Making Worksheet)

Tips for completing the decision making worksheet:

- Encourage participants to list as many good and not so good things as they can think of.
- Use reflective listening to acknowledge some of the reasons for and against smoking.
- Use double-sided reflections to highlight discrepancies between how the participant wants things to be and the way they are right now.

a. Good things the participant likes about smoking.

“What are some of the GOOD THINGS that you like about your smoking?” (Reflect back some of the reasons the participant lists, and continue to probe for more, until he/she can't think of anything else. If the participant can't think of any, offer some suggestions: “some people tell us that smoking helps them deal with stress or that it helps them relax when they feel nervous or frustrated... is this true for you?” “is there anything else?”

b. Not so good things about the participant's smoking.

“What are some of the NOT SO GOOD THINGS about your smoking, things that you don't like so much?”

c. Participant's worries about not smoking, if he/she was to quit someday.

“If you were ever to quit someday (or now that you've quit), what would be some of your worries or concerns about not smoking?”

d. Benefits the participant would hope to gain from quitting.

“If you were to quit (or now that you've quit), what would be some of benefits you would hope to gain?”

Summarize the good things, not so good things, and benefits of quitting someday. Note the number of good things in comparison to not so good things.

E.g., “It sounds like there's only 1 or 2 things you like about your smoking, such as (list the reasons given) yet there's quite a few things that you don't like (list). Have you ever noticed this? What do you make of it?” (Wait for the participant's response). And if you were ever to quit some day, these are the things you would hope to gain (list the benefits he/she reported). Do I have that right? Is there anything else you want to add to this picture?”

“Thank you for sharing this information with me. I now have a better picture of your smoking and how it fits into your daily routine.”

<p>Health Behavior and Decision Making Worksheet</p>

Current Health Behaviors:

Things I do to keep myself healthy

- 1.
- 2.
- 3.

Things I do that are not healthy for me

- 1.
- 2.
- 3.

Good Things and Not So Good Things About My Smoking:

Good things about my smoking:	Not so good things about my smoking:
If I quit smoking someday, these are my worries or concerns:	The benefits I hope to gain from quitting:

Changes I would like to make:

- 1.
- 2.
- 3.

Reasons I want to make changes:

- 1.
- 2.
- 3.

B4. Assess Desire and Confidence to Quit Smoking

When we asked you on the survey about your confidence to quit smoking, you indicated that (did or did not) feel very confident about being able to quit smoking. Can you tell me more about this?

If confidence is > 0, it's great that you have some confidence, what makes you feel even a little bit confident? Acknowledge and affirm reasons for having some confidence. What would have to change to make you feel more confident?

c. ADVISE THE PARTICIPANTS ABOUT THE BENEFITS OF QUITTING AND

ADVISE ALL PARTICIPANTS TO QUIT SMOKING

1. Provide a clear recommendation to quit smoking.
2. Encourage participant to think about quitting smoking (personalize reasons, based on the participant's current health and concerns about smoking).

E.g., "As a member of the Partnership for Health team, I strongly encourage all of the participants I talk with in this project to seriously think about quitting smoking. Not smoking is the single best thing you can do for your health and the health of people who you spend time with while you are smoking. I know it's not an easy thing to do, and that the decision to quit is up to you. Given your _____ (list personal health and other reasons the participant has mentioned), quitting smoking might also help you to _____ (list personal benefits participant would likely get from quitting). If you decide to quit or make any changes in your smoking, or some other health behavior, I would like to help you. The important thing to remember is that it's never too late to quit."

ASSESS READINESS TO CHANGE (RESPONSES MAY DIFFER FROM BASELINE SURVEY)

Given all that you've told me, I'm wondering... what do you want to do about your smoking right now?" (Elicit the participant's response and circle the corresponding choice below. Probe for clarification if the participant's response is not clear):

1. I'm not ready to make any changes in my smoking or anything else right now.
2. I'm not ready to make any changes in my smoking right now, but there are other changes I would like to make in my life.
3. I have recently made changes in my smoking.
4. I am ready to make some changes in my smoking, but I'm not ready to quit right now.
5. I am ready to quit smoking right now.
6. I have just recently quit smoking.
7. Other (if none of the above responses fit, specify where participant is at): _____

D. ASSIST PARTICIPANTS IN SETTING GOALS, BASED ON THEIR READINESS TO CHANGE

To assist participants with a plan, go to the numbered section (that follows) that matches their stage of readiness above. Once the plan is negotiated, **SUMMARIZE THE ENTIRE PLAN AND CONFIRM THAT THIS IS WHAT THE PARTICIPANT WANTS TO DO.**

Whenever you offer to send participants new or additional materials, always confirm their address, and their ability to receive packages at this address.

1. NOT READY TO MAKE CHANGES IN SMOKING OR ANYTHING ELSE NOW:

OUR GOALS - TO HELP PARTICIPANTS THINK ABOUT INFORMATION THAT WILL:

- Assess participant's goals for health enhancement
- Enhance their knowledge of smoking-related disease & benefits of quitting
- Influence their attitudes about smoking and health
- Increase their perceived risk of smoking-related illness

- a. Assess participant's goals for health enhancement.
- b. Encourage participant to think about the good and not so good things about his/her smoking.
- c. Provide accurate (and personalized) information about how smoking affects health, when appropriate.
- d. Encourage participant to read the materials in the binder that we sent.
- e. Offer to send a copy of the *Health Behavior and Decision Making Worksheet* and encourage participants to think more about how they are feeling, where they are, who they are with and how satisfied they feel as they smoke each cigarette during the upcoming week. Encourage them to add more reasons to the Worksheet over the next few weeks.

"I can understand that it may be very hard for you to think about making changes in your smoking right now. It's important to remember that all ex-smokers begin exactly where you are, but then something changes and they eventually stop smoking.

Even though you're not ready to make changes, you might want to think about reasons why it might be good for you to stopping smoking to protect your health and the health of family and friends you spend time with.

As a reminder, the binder of materials that we sent to you includes your personalized health profile and tailored manual, which may be helpful to you, even if you're not ready to make any changes right now. Do you think you could take some time to read these materials over the next month? In addition, I would be happy to send you a copy of your Decision Making Worksheet, so that you can think more about your smoking. Are there any other health-related materials you are interested in?

It would also be really great if you could think about how you're feeling, who you're with and how satisfied you feel as you smoke your cigarettes over the next week or two. This way, when I call you again in about a month, you can let me know what you think of the information we sent, whether or not it was helpful to you, and what, if anything, you learned about your smoking."

2. NOT READY TO CHANGE SMOKING, BUT READY TO MAKE OTHER CHANGES:

GOAL - TO HELP PARTICIPANTS DEVELOP A PLAN TO MAKE CHANGES IN THE BEHAVIOR(S) THEY IDENTIFIED AND TO THINK ABOUT INFORMATION THAT WILL:

- Enhance their knowledge of smoking-related disease & benefits of quitting
 - Influence their attitudes about smoking and health
 - Increase their perceived risk of smoking-related illness
- a. Assess what health behavior change(s) the participant would like to make and list them on the change worksheet.
 - b. Identify the health and other benefits the participant hopes to achieve.
 - c. Help participants identify specific steps they need to take to achieve their goals and a target date to begin taking these steps.

TO HELP PARTICIPANTS THINK ABOUT THEIR SMOKING:

- d. Encourage participant to think about the good and not so good things about smoking.
- e. Provide accurate (and personalized) information about how smoking affects health, when appropriate.
- f. Encourage participant to read the materials in the binder that we sent.
- g. Offer to send a copy of the Health Behavior and Decision Making Worksheet and encourage participants to think more about how they are feeling, where they are, who they are with and how satisfied they feel as they smoke each cigarette during the upcoming week. Encourage them to add more reasons to the Worksheet over the next few weeks.

“It’s great that you are ready to make some changes in _____ (name the health behavior). What is it that you’re looking to achieve? What steps are you ready to take in order to make these changes? If participant has no ideas or asks for suggestions, offer successful change strategies that have worked for others.

“When trying to make changes,, it is helpful to set a start date right away, while you are still motivated. When do you think you can begin taking these steps?”

As a reminder, the binder of materials that we sent to you includes your personalized health profile and tailored manual, which are designed just for you. These materials will be helpful to you, even if you're not ready to make any changes right now. Do you think you could take some time to read these materials over the next 2 weeks? In addition, I would be happy to send you a copy of your Decision Making Worksheet, so that you can think more about your smoking. Are there any other health-related materials you are interested in?

It would also be really great if you could think about how you're feeling, who you're with and how satisfied you feel as you smoke your cigarettes over the next week or two. This way, when I call you again in about a month, you can let me know what you think of the information we sent, whether or not it was helpful to you, and what, if anything, you learned about your smoking.”

3. IF RECENTLY MADE CHANGES IN SMOKING:

GOAL - TO ACKNOWLEDGE CHANGES ALREADY MADE AND TO HELP PARTICIPANTS THINK ABOUT MAKING FURTHER CHANGES BY CONSIDERING INFORMATION THAT WILL:

- Enhance their knowledge of smoking-related disease & benefits of quitting
 - Influence/reinforce their attitudes about smoking and health
 - Increase their perceived risk of smoking-related illness
- a. Acknowledge changes participant has already made and assess any benefits noted.
 - b. Assess why the participant made these changes and whether he/she has achieved his/her goals.
If goals were not met, help explore other changes to help participant reach these goals.
 - c. Encourage participants to think about what might get in the way of making further changes see pg. 19 of protocol (e.g., low confidence to make changes, limited knowledge/resources to make additional changes, living with other smokers....)
 - d. Encourage participant to read the materials in the binder that we sent.
 - e. Offer to send a copy of the *Health Behavior and Decision Making Worksheet* and encourage participants to think more about how they are feeling, where they are, who they are with and how satisfied they feel as they smoke each cigarette during the upcoming week.
 - f. Inform participant that if he/she decides to quit, we can offer free NRT through their doctor.

“It's great that you've already _____ (describe changes the participant has made). How did that go for you? What's been different for you since you _____ (name the changes made)?”

What are your thoughts about making further changes? What motivates you to want to make further changes? What might get in the way of your being able to make further changes right now? What might make it possible for you to be able to make future changes?

If ready, to make further changes: What steps are you ready to take in order to make these changes? If participant has no ideas or asks for suggestions, offer successful strategies that have worked for others. “When trying to make changes, it is helpful to set a start date right away, while you are still motivated. When do you think you can begin taking these steps? If you are thinking about quitting, we can offer you free nicotine patches through your doctor’s office, if you are interested.”

If not ready to make further changes: “Even though you're not ready to make any new changes in your smoking right now, it is important to continue to think about cutting back further or stopping smoking to protect your health and the health of family and friends you spend time with.

As a reminder, the binder of materials that we sent to you includes your personalized health profile and tailored manual, which are designed just for you. Could you take some time to read these materials over the next few weeks? I will also send you a copy of your Decision Making Worksheet, to help you think more about your smoking. It would also be really great if you could think about how you're feeling, who you're with and how satisfied you feel as you smoke your cigarettes over the next week or two. This way, when I call you again in about a month, you can let me know what you think of the information we sent, whether or not it was helpful to you, and what, if anything, you learned about your smoking.”

4. IF READY TO MAKE CHANGES IN SMOKING, BUT NOT READY TO QUIT:

GOALS - TO HELP PARTICIPANTS DEVELOP A PLAN TO MAKE CHANGES IN SMOKING AND TO THINK ABOUT STRENGTHENING COMMITMENT TOWARD QUITTING:

- Enhance their knowledge of smoking-related disease & benefits of quitting
- Influence/reinforce their attitudes about smoking and health
- Increase their perceived risk of smoking-related illness
- Assess barriers and enhance confidence to make changes

- a. Assess what change(s) the participant would like to make and list them on the change worksheet.
- b. Assess health and other benefits the participant hopes to achieve by making these changes.
- c. Help participants identify specific steps they can take to achieve their goals and a target date to begin taking these steps.
- d. Assess obstacles that may get in the way or make it harder to accomplish these changes.
- e. Acknowledge how admirable it is that the participant has decided to make these changes.
- f. Encourage participant to think of making changes as an experiment; he/she should not feel discouraged if unable to make the desired changes. There are other options and ways to change.
- g. Encourage participant to read the materials in the binder that we sent.

*"It's great that you are ready to make some changes in your smoking. What steps can you take to get started? * What are you hoping to gain by making these changes?"*

"It sounds like you have thought a lot about this, and have decided on a great way to get started."

***Or, If the participant has no ideas on how to change,** describe strategies that have worked for others. *"Some people find it helpful to cut down by limiting the number of cigarettes they smoke, others may limit their smoking to certain rooms or times of day. Others make new rules, like no smoking in the house or car. Which approach do you think would work best for you?"* Encourage the participant to be specific.

"When trying to make change like this, it's best to get started right away, while you are still motivated. When would be the best time for you to begin to make these changes?" Note subject's proposed start date.

"How do you think your plan will work out? What might get in the way of your accomplishing your plan?" Help the participant problem-solve and map out a plan.

As a reminder, you should have received a binder with your personalized health profile and tailored manual that are designed just for you. You should find these materials helpful as you start to make some changes. Have you had a chance to read any of the information? Do you think you could take some time to read these materials over the next few days? In addition, I would be happy to send you a copy of your Decision Making Worksheet, so that you can think more about the reasons why you are making these changes and what might get in the way. Is there any other information that you would like to know about that you think might help you with your plan? Are there any other health-related materials you are interested in?" (List some example topics).

5. IF READY TO QUIT SMOKING:

GOALS - TO HELP PARTICIPANTS DEVELOP A PLAN TO QUIT SMOKING

- Enhance their knowledge of smoking-related disease & benefits of quitting
 - Influence/reinforce their attitudes about smoking and health
 - Increase their perceived risk of smoking-related illness
 - Assess **barriers** to quitting and enhance their self-confidence
 - Enhance social support
- a. Affirm the participant's decision to quit smoking.
 - b. Assess the health and other benefits (goals) the participant hopes to achieve through quitting.
 - c. Help participants identify specific steps to help them quit and set a target quit date.
 - d. Assess any obstacles that may get in the way or make it difficult for the participant to quit.
 - e. Encourage the participant to get support from family, friends and local community members.
 - f. Encourage participant to think of this quit attempt as an experiment; he/she should not feel discouraged if unable to make the desired changes. There are other options and ways to change.
 - g. Explore the participant's interest in trying NRT, and let him/her know we can offer free NRT through the primary care physician's office.
 - h. Encourage participant to read the materials in the binder that we sent.

*"It's great that you are ready to quit smoking right now! What are you hoping to gain by quitting smoking? There are lots of different ways of quitting, have you thought about what would work best for you? * It sounds like you have given a lot of thought to this, and have come up with a great way to quit."*

*If the participant has no ideas on how to quit, describe strategies that have worked for others.

"Some people find it helpful to give up cigarettes all at once, while others prefer to start by cutting down or switching to another brand as they work toward a target quit date. Which approach do you think would work best for you?" Encourage participant to be specific and summarize the plan

"When trying to make changes like this, it's best to get started right away, while you are still motivated. When would be the best time for you to begin to cut back or quit?" **Note subject's proposed start date.** *It is also helpful to find at least one person who you can talk with about your quit plan, so that he or she can support and encourage you as you make these changes. Is there anyone who can help you in this way?*

"How do you think your plan will work? What might get in the way of your accomplishing your plan?" Help the participant problem-solve and map out a plan for each of the barriers.

As a reminder, you should have received a binder with your personalized health profile and tailored manual that are designed just for you. You should find these materials helpful as you quit smoking. Do you think you could take some time to read these materials over the next few days? In addition, I would be happy to send you a copy of your Decision Making Worksheet, so that you can think more about the reasons why you are making these changes and what might get in the way. Is there any other information that you would like to know about that you think might help you with your plan? Are there any other health-related materials you are interested in?" (List some example topics).

6. I HAVE JUST RECENTLY QUIT SMOKING:

GOALS - TO HELP PARTICIPANTS REMAIN SMOKE-FREE (I.E., PREVENT RELAPSE)

- Enhance their motivation to remain smoke-free
 - Influence/reinforce their attitudes about smoking and health
 - Assess their perceived risk of smoking-related illness
 - Assess potential tempting situations and enhance their self-confidence
 - Enhance social support
- a. Assess when the participant stopped smoking and what motivated him/her to stop smoking.
 - b. Affirm the participant's efforts to remain smoke-free.
 - c. Assess current benefits and consequences the participant has experienced since quitting.
 - d. Help participants identify tempting situations that may make it hard to remain smoke-free.
 - e. Encourage the participant to get support from family, friends and local community members.
 - f. Explore the participant's interest in trying NRT, and let him/her know we can offer free NRT through the primary care physician's office.
 - g. Encourage participant to read the materials in the binder that we sent.

"It's great that you've already quit smoking! How long has it been since you last smoked? How did you quit? How are you doing without smoking? What kinds of changes have you noticed since you've stopped?" Reinforce the positive benefits and empathize with the difficulties. Assess whether any of these difficulties might cause the participant to go back to smoking, and explore other ways in which the participant might manage these difficulties.

"It sounds like you're doing great without smoking right now, but I was wondering if you can think of any situations that might make it hard for you to remain smoke-free? How else might you manage that situation, without smoking?" Encourage the participant to identify other coping strategies that might help them in tempting situations.

"Have you told any of your family or friends that you have stopped smoking? How have people reacted? Sometimes people find it helpful to identify at least one person who they can rely on to encourage them to stay off cigarettes, especially when they feel tempted to smoke. Is there anyone in your life that can do that for you? Have you used other people's support in that way?"

If participant quit without any nicotine replacement: *"It sounds like you are doing a great job without cigarettes! I just want you to know that if at any point you find the urge to smoke to become increasingly difficult, or if you find yourself smoking again, we can offer you free nicotine patches through your doctor's office. All you need to do is to let me know that you are interested, and we can set up a plan for you to receive them."*

E. ARRANGE FOLLOW-UP TO DISCUSS SMOKING AT NEXT PHONE CALL

Follow section 1 or 2, depending on readiness to make changes:

1. IF PARTICIPANT IS READY TO MAKE SOME CHANGES

(cut back, quit smoking or change other health behavior(s):

- a. Acknowledge and encourage any changes the participant agrees to try.
- b. Offer to call participant to discuss how the changes are going within:
 - **48 hours of his/her target quit date** or
 - **2 weeks if participant is going to make any changes, but not fully quit**
- c. Inform participants that you really want to be able to talk with them again, regardless of whether they were able to make changes, or not.
- d. Determine the best time to call & the best phone number to reach the participant.

e.g., *“It was great talking with you today. Since this is a research study, and we're trying to learn more about health habits, it's really important to me that I get to talk with you again, regardless of whether or not you are able to make any changes. We've also found that when people are trying to make changes (or when people have recently stopped smoking), it is often helpful to have someone to talk to within the first couple of days to see how things are going. Would it be okay if I called you again in _____ (specify when next call will be)? When might be a good time to call you?”*

If participant is non-committal, suggest a date and time that would work best for you. *“Is this the best phone number to reach you at? If I can't reach you at this number, is there another number where I might reach you?”*

2. IF PARTICIPANT IS NOT READY TO MAKE ANY CHANGES:

- a. Acknowledge how helpful it was to talk with the participant.
- b. Offer to call participants again in a **month** to discuss how things are going, to see if they have reviewed any of our materials, and to discuss additional thoughts about their smoking and other health behaviors.
- c. Inform participants that you really want to be able to talk with them again, regardless of whether they were able to review any of our materials, or not.
- d. Determine the best time to call & the best phone number to reach the participant.

e.g., *“It was great talking with you today. Since this is a research study, and we're trying to learn more about health habits, it's really important to me that I get to talk with you again, even if you are not planning to make any changes. Would it be okay if I called you again in a month or so, to find out how things are going and to see if you have any questions regarding the materials we sent you? When might be a good time to call you?”*

If participant is non-committal, suggest a date and time that would work best for you. *“Is this the best phone number to reach you at? If I can't reach you at this number, is there another number where I might reach you?”*

CCSS MOTIVATIONAL INTERVENTION PROTOCOL INTERVENTION PHONE CALL #2 - 6

A. ADDRESS THE AGENDA: CONTINUED RAPPORT BUILDING

“Hi _____ (participant's name), this is _____ (counselor's name) from the Partnership for Health Project. How are you doing? Is this an okay time to talk with you?”

If yes, proceed with section B.

If no: “That’s fine, I was just calling to see how things are going for you and to follow-up on our last phone call... when would be a better time for me to call you?”

B. ASSESS ANY CHANGES THE PARTICIPANT HAS MADE AND ASSIST IN MOVING ALONG THE READINESS CONTINUUM

At phone call #4 or at some “mid-way” point, summarize the essence of the phone interventions to date, and assess what else the participant would like to learn or accomplish over the remaining phone calls.

Ask about events or hobbies that may have occurred since last phone call.

“When we last talked you were (ready or not ready) to make changes in your smoking (or in other health behavior).”

IF READY TO MAKE SOME CHANGES IN SMOKING (OR OTHER BEHAVIOR): “I’m wondering if you were able to try _____ (list the changes the participant agreed to make).”

If yes: “That's great! How did it go for you?”

If things went well: “How do you feel? What changes have you noticed? What kinds of difficulties did you encounter? Where do you want to go from here? Now that you've accomplished your goals, are there other changes you may want to make?”

If things did not go as planned: “It’s great that you gave it a try! What happened? Reflect back difficulties the participant reports. “(The important thing to remember is that each time you try to cut back or quit, you learn new things about your smoking that brings you one step closer to quitting for good. The best thing to do is to learn from this experience, and try again. Don't let it get you down! What might you do differently if a similar situation comes up?”

If no: “That's okay. Sometimes it’s hard to change our routines, even when we really want to. Can you tell me more about what was going on this week and what happened? Acknowledge particularly stressful or demanding events. What do you think you could have done differently?”

Do you think the changes you wanted to make are still realistic for you?”

If yes: “It’s great that you are committed to making these changes. The best thing to do is to try and set another start date, while you are still motivated to make changes. When do you think you could try again? How will you handle situations like the ones that you were in last week?”

If no: *“Maybe it would be best to scale back on the changes you thought you could make. What do you think would be realistic for you at this time?”*

IF NOT READY TO MAKE ANY CHANGES IN SMOKING: *“I’m wondering if you've had any other thoughts about some of the things we talked about during our last phone call?”*

If yes: *“What have you been thinking about?”* If participant would like to make new changes, review **READY TO MAKE CHANGES PROTOCOL** to negotiate a change plan.

If no: *“That's okay. It sounds like things are very busy for you and that you're doing all that you can right now.”* Review **NOT READY TO MAKE ANY CHANGES IN SMOKING PROTOCOL.**

C. ADVISE ABOUT USING THE MATERIALS: For all, regardless of readiness to change:

“Regardless of whether you decide to make any changes or not right now, the most important thing for you to do is to begin thinking more about how your smoking affects you (and those who are close to you) and to take some time to learn more about the harms of smoking and benefits of making changes. The materials that we sent you can help with this. Could you take some time over the next couple of days to read these materials and let us know what you think?”

D. ARRANGE FOLLOW-UP TO DISCUSS SMOKING FOR NEXT PHONE CALL

For the last intervention phone call, summarize the highlights of what was discussed, progress made and future plans for making changes.

Follow section 1 or 2 below, depending on readiness to make changes:

1. IF THE PARTICIPANT IS READY TO MAKE CHANGES:

- a. Acknowledge and encourage any changes the participant agrees to try.
- b. Offer to call participant within 48 hrs of his/her target quit date or in 2 weeks if participant is going to make changes, but not fully quit, to discuss changes made.
- c. Inform participants that you want to talk with them again, regardless of whether or not they were able to make changes.
- d. Determine the best time to call & the best phone number to reach the participant.

e.g., *“It was great talking with you today. When people are trying to make some changes (or have recently made a big change, such as stopping smoking), it is often helpful to have someone to talk to within the first week or two to see how things are going. Would it be okay if I called you next week? The important thing to remember is that I would like to talk with you again, regardless of whether or not you have been able to make these changes. When might be a good time to call you?”* If participant is non-committal, suggest a date and time that works best for you. *“Is this the best phone number to reach you at? If I can’t reach you at this number, is there another number where I might reach you?”*

2. IF PARTICIPANT IS NOT READY TO MAKE CHANGES:

- a. Acknowledge how helpful it was to talk with the participant.
- b. Offer to call participants again in a **month** to discuss how things are going, if they have reviewed any of our materials, and to discuss additional thoughts about their smoking.
- c. Inform participants that you want to talk with them again, regardless of whether or not they were able to review any of our materials.
- d. Determine the best time to call & the best phone number to reach the participant.

e.g., *“It was great talking with you today. It sounds like there’s a lot going on for you right now, and that this may not be the best time for you to make changes. It’s great that you’re willing to think about your smoking and review the materials we sent you. The important thing to remember is that I would like to talk with you again, regardless of whether or not you have been able to review the materials. Would it be okay if I called you again in a month or so, just to see how things are going? When might be a good time to call you?”* If participant is non-committal, suggest a date and time that works best for you. *“Is this the best phone number to reach you at? If I can’t reach you at this number, is there another number where I might reach you?”*

WAYS TO ENHANCE PARTICIPANT'S SELF CONFIDENCE (SELF-EFFICACY)

1. Explore past quit attempts

Affirm/acknowledge any changes participant was able to make, regardless of magnitude or length of time change was sustained.

E.g., "It's a big accomplishment to go from smoking a pack per day to staying off cigarettes for 2 - 3 whole days. How was that for you?"

Assess what went well during the quit attempt, and what was difficult. What made the participant go back to smoking? Reframe difficulties as learning experiences for next quit attempt. (E.g., Think of past quit attempts as learning experiences, instead of as failures).

Assess what the person might do differently if he/she tried to quit again.

2. Compare desire to quit with confidence in ability to quit.

"If you could be 100% successful at quitting, how much do you want to quit on a scale of 0 - 10, with 0 being not at all and 10 being very much? Using the same scale of 0 - 10; 0 being not at all confident and 10 being extremely confident, how confident are you that you could quit smoking right now?"

Compare both responses. E.g., *"It sounds like you really do want quit smoking, but you don't feel very confident that you could quit and stay quit. Is that right? Most smokers feel this way... and for many smokers, it's their lack of confidence that keeps them from trying to quit. Ironically, the act of trying to quit helps people to learn more about their smoking, which brings them one step closer to quitting for good. Just like with most things, the more you practice, the better you become. I like to encourage all smokers I talk with to try and quit, at least as a way to learn more about what will work best for you. How do you feel about that?"*

3. Explore other difficult situations the person has been through, and how he/she managed to cope.

"What are some difficult situations you have had to deal with in the past? What did you do to get through them?"

Identify specific coping strategies the participant used that might be applied to making changes in smoking (e.g., relaxation approaches, visual imagery, deep breathing, exercise).

Acknowledge that the person has overcome difficulties before and that he/she should not be afraid to try quitting just because it's a hard habit to break.

4. When appropriate, acknowledge your own cancer experience, how you got through the rough times, and how you use those coping skills to approach current challenges.

5. Share other smokers' success stories.

E.g., "Many ex-smokers begin exactly where you are. And though quitting smoking is hard, many people who have described similar difficulties in quitting are able to give it up completely. I am confident that if you decide to quit you will be able to. And I can help you, if you'd like."

IF THE PARTICIPANT IS NOT READY TO MAKE ANY CHANGES IN SMOKING

GOAL - TO HELP PARTICIPANTS THINK ABOUT INFORMATION THAT WILL:

- ENHANCE THEIR KNOWLEDGE OF SMOKING-RELATED DISEASE & BENEFITS OF QUITTING
- CHANGE THEIR ATTITUDES ABOUT SMOKING AND HEALTH
- INCREASE THEIR PERCEIVED RISK OF SMOKING-RELATED ILLNESS

OBJECTIVES:

1. Encourage participants to think more about their reasons for and against making changes in their smoking.
2. Encourage participants to think about personal health risks and symptoms related to their smoking.
3. Encourage participants to think about what might be getting in their way of making changes (e.g., low confidence in ability to make changes, limited knowledge or resources to make changes, living with other smokers. . . .)
4. Encourage participant to read the materials we sent.

SAMPLE SCRIPT TO ACHIEVE GOALS AND OBJECTIVES ABOVE:

E.g., *“It seems that you're not ready to make any changes in your smoking right now, and that's okay. However, you may want to think more about the ways in which smoking helps you and some of the reasons why smoking may not be so good for you and those around you. For example, you may want to pay more attention to how you are feeling, where you are, who you are with, and how satisfied you feel as you smoke your cigarettes throughout the week. This will help you to better understand what you like most and least about your cigarettes. As you think about your smoking, you may want to add new thoughts to the Decision-Making Worksheet we sent you.*

In addition, you should have received a binder with your personalized health profile and tailored manual that were designed just for you. You should find these materials helpful, even if you don't want to make any changes in your smoking right now. Since this is a research project, it would be really helpful if you would review these materials and let us know what you think, in order for us to be sure that we're meeting your needs. Do you think you could take some time to read these materials over the next couple of days? Is there any other information that you would like to know about smoking that you think might be helpful? Are there any other health-related materials you are interested in?” List topics available and offer to send.

IF THE PARTICIPANT IS READY TO MAKE CHANGES IN SMOKING

GOAL - TO HELP PARTICIPANTS DEVELOP A PLAN TO CUT BACK OR QUIT SMOKING

- ENHANCE THEIR KNOWLEDGE OF SMOKING-RELATED DISEASE & BENEFITS OF QUITTING
- CHANGE THEIR ATTITUDES ABOUT SMOKING AND HEALTH
- INCREASE THEIR PERCEIVED RISK OF SMOKING-RELATED ILLNESS
- ASSESS BARRIERS TO QUITTING AND ENHANCE THEIR SELF-CONFIDENCE
- ENHANCE SOCIAL SUPPORT

OBJECTIVES:

1. Assess what changes the participant would like to make and discuss the following:
 - a. what specific steps does the participant plan to take? (list)
 - b. what might get in the way of the participant achieving these goal(s)?
 - c. when will the participant begin to make these changes?
2. Offer new or additional change strategies, when appropriate.
3. Affirm participant's decision to make changes.
4. Encourage the participant to use social support.

SAMPLE SCRIPT TO ACHIEVE GOALS AND OBJECTIVES ABOVE:

E.g., *"It's great that you want to make some changes right now. What is your ultimate goal? What do you feel you can do right now? What are you hoping to gain by making these changes? It sounds like you have thought a lot about this, and have come up with a great way to get started."*

If the participant has no ideas on how to change, describe strategies that have worked for others. *"Some people prefer to give up cigarettes all at once, while others find it helpful to start by cutting down on their smoking or switching brands. Which approach do you think would work best for you?"* Encourage the participant to be specific.

"When trying to make changes like this, it's best to get started right away, while you are still motivated. When would be the best time for you to begin to make these changes? How do you think your plan will work out? What might get in the way of your accomplishing your plan?" Help the participant problem-solve and map out a realistic and specific plan.

As a reminder, you should have received a binder with your personalized health profile and tailored manual that were designed just for you. You should find these materials helpful as you start to make some changes. Could you make some time to read these materials over the next few days? In addition, I also sent you a copy of your Decision Making Worksheet, so that you can think more about the reasons why you are making these changes and what might get in the way. Is there any other information that you would like to know about that you think might help you with your plan? Are there any other health-related materials you are interested in?"

It's important to think about making changes as practice, so that you don't get discouraged or give up, if things don't go as smoothly as you would like. The important thing is to stay focused on your reasons for wanting to make these changes and to stay committed to making change happen.

People often find it helpful to find at least one person who they can talk with about the changes they are making so that they can get additional support. Is there anyone in your life that you feel comfortable talking with? How can this person best encourage and support you?"

IDENTIFYING BARRIERS TO QUITTING SMOKING OR MAKING OTHER CHANGES

Assess what might get in the way of participants trying to quit or achieve their plan, once they are ready to make changes.

E.g.,

- fear of failure
- when stressed
- tempting situations, such as with a cup of coffee or while drinking alcohol
- weight gain
- being around others who smoke

Assess other coping skills the participant has used to deal with difficult situations in the past, (e.g., positive self-talk, relaxation strategies, visual imagery, deep breathing, meditation) and how well they worked.

How do their friends who don't smoke deal with some of these stressors?

What else, instead of smoking, might the participant try to get through tempting situations?

Fear of Failure

"I'm curious, what kinds of things make it hard for you to think about quitting smoking? Many smokers tell me that one of the reasons they don't even try to quit is because they're not sure they will succeed. Is this true for you? Being afraid to fail is a sign that you really want to succeed, and would rather wait until you feel more confident before attempting a change. Ironically, what best builds confidence is practice, which means trying to quit. I like to think of quit attempts as an experiment or an opportunity to learn more about what will and won't work. Sometimes people put so much pressure on themselves to quit for good on the first try, that they don't even want to take that step. How do you see it?"

The bottom line is that you won't know how far you can go until you try. What else do you feel might get in the way of your being able to quit?"

When Stressed

What other things have you done in the past to get-through difficult situations? For example, before you started smoking, how did you handle stress or deal with difficulties? How well did these strategies work for you? Are these things you could do, instead of smoking when you need to relax? What do your non-smoking friends do when they need to unwind or relax?"

When Participants Don't Know of Other Ways to Relax

Some smokers find the process of smoking, for example, taking a "time-out" break and long deep breaths of a cigarette to be the most relaxing part of smoking. I wonder if what's most relaxing about smoking can also be accomplished without a cigarette. What do you think of this? Other people find relaxation techniques like visualizing being a non-smoker, reading a book, physical activity, yoga and meditation to also help distract them from thoughts about cigarettes, and help to manage stress. Have you ever tried any of these? Would you like to learn more about how to do these?"

PREVENTING SLIPS AND RELAPSE

RELAPSE - means the person began smoking regularly after some time of abstinence.

A SLIP - means the person has smoked at least one cigarette, but recovered and is not smoking regularly.

Help the participant understand the difference between a “slip” and a “relapse”.

ADDRESS 1 - 5 BELOW IF SOMEONE RELAPSES OR SLIPS:

- 1) Acknowledge smoking status and feelings.

“I understand that you're smoking again. How are you feeling about that?”

- 2) Help to reduce feelings of guilt and disappointment about smoking and inspire participant to try again.

“It sounds like you're feeling pretty defeated about smoking again. I can understand why you might feel disappointed in yourself since you were so determined to quit smoking. It's equally important, however, to recognize how much quitting smoking means to you, and how far you have come! The best way to reach your goals is to learn from your past slips or relapses and make a new plan to help you not smoke. Would you like to talk about additional things that might be helpful to you?”

- 2) Get a description of what happened.

“What was going on when you had that first cigarette?”

Discuss possible ways that he/she could have handled that situation or feeling.

“What are some other ways you could have handled that situation without smoking?”

- 4) Ask what they've learned from this and how they might handle it in the future; emphasize the importance of advanced planning.

- 5) Emphasize quitting as a process that sometimes completes a full circle and repeats. Reassure him/her that people often quit a number of times before they're successful.

FOR THOSE WHO HAVE RELAPSED:

- 7) Ask if he/she is willing to set a new Quit Date.

If yes: *That's great! What day would you like to set as your Quit Day? Do you have a sense of how you'll get ready for quitting?*

If no: *OK, I realize that you're not ready to quit again right now. Would it be okay if I called you in a few weeks to see how you feel about it then?*

FEAR OF WEIGHT GAIN

Many people are concerned about gaining weight after quitting. Most people gain about 4 - 7 pounds if their eating habits and physical activity levels stay the same. Those who gain more weight have used food as a substitute for cigarettes. The best way to avoid or minimize weight gain is to watch what you eat and increase physical activity.

Drinking lots of water and eating fruits, vegetables and low calorie sucking candies or chewing gum will help to satisfy oral cravings. High calorie snack foods will be more likely to cause weight gain.

Increasing physical activity provides many benefits. It helps to minimize weight gain by helping you to burn more energy, helps to improve your breathing, overall fitness, and sense of well-being.

Tempting Situations

*There are four effective ways to deal with tempting situations: **avoid, alter, substitute, and change your thoughts.***

- 1. As smokers prepare or try to quit, it is sometimes helpful to **avoid** people, places, and events that may tempt you to smoke. When you live with other smokers, it is helpful to discuss your plans to quit and ask them to support you by smoking outside and discouraging you from smoking when you get the urge.*
- 2. When you can't avoid certain situations, it can help to **alter** your routine to reduce temptations. For example, having your morning coffee in a different room can help break the association of coffee and cigarette.*
- 3. **Substitute** activities that keep your hands busy, like working on the computer, doing a craft or hobby, knitting, or doing the dishes when you get the urge to hold a cigarette.*
- 4. **Change your thoughts** in favor of becoming a non-smoker. Think of the reasons why you want to make changes when cravings for cigarettes arise. Tell yourself "I am a non-smoker! or I can get through this without a cigarette!" Then distract yourself with some other activity or reward yourself for resisting the urge to smoke. How would you encourage your best friend if he or she were trying to quit?*

WAYS TO INCREASE PHYSICAL ACTIVITY

Current Recommendations for Becoming More Physically Active (e.g., walking, running, household chores or hobbies, swimming, biking)

- 1. Accumulate at least 150 minutes of aerobic activity each week (at least 30 minutes on 5 or more days per week).**
- 2. Incorporate physical activity into most days of the week.**
- 3. Accumulated physical activity may be as effective at improving overall well being and reducing risk for cancer and heart disease as fewer, but longer exercise sessions.**

1. Assess the participant's reasons for wanting to be more physically active.

"It's great that you want to become more physically active. In what ways are you hoping this will help you? Do you have any medical conditions that might be affected by increasing your physical activity? You may want to talk with your doctor if you have any questions or concerns about increasing your activity level."

2. Assess the ultimate goal participant would like to achieve along with steps he/she can take toward that goal. Encourage the participant to set realistic, achievable steps and goals.

"How much physical activity would you like to be doing each week? What steps are you thinking about taking in order to get started? When would be best for you to begin taking these steps? How do you plan to increase your activity so that you can achieve your ultimate goal? How realistic is this plan, given your schedule, physical health and other responsibilities you have?"

3. Remind the participant to reward him/herself each time a goal is met

"It is important that you reward yourself when you meet one of your goals in order to keep yourself motivated to continue. Rewards can be simple things like visiting or talking with friends, buying yourself flowers or new clothes, or watching a movie."

4. Encourage the participant to identify various activities he/she likes to do in order to keep active.

"It is helpful to find different activities, both indoor and outside, that you enjoy to keep you active and prevent boredom or burnout. What kinds of things do you like to do outside? List. What about indoor activities? List. How might you vary your routine in order to stay active all year long?"

WAYS TO IMPROVE EATING HABITS

Recommendations for Healthy Eating (According to NCI, ACS and other health/medical organizations)

- **Eat mostly foods from plant sources (e.g. fruits, vegetables, whole grains, beans)
Eat at least 5 servings of fruits and vegetables each day to lower risk for cancer, heart disease, and other chronic illnesses.**
-
- **Eat other foods from plant sources, such as breads, cereals, grain products, rice, pasta, or beans several times each day.**

2. Limit your intake of high-fat foods, particularly from animal sources

- **Choose foods that are lower in fat**
- **Eat more low or non-fat dairy products**
- **Reduce consumption of red meat**

1. Assess participant's reasons for wanting to eat more healthfully.

"It's great that you want to eat more healthfully. What are you hoping to gain from this? Do you have any medical conditions that might be affected by your changing your eating habits? You may want to talk with your doctor if you have any questions or concerns about changing your diet."

2. Assess the ultimate goal participant would like to achieve along with steps he/she can take toward that goal. Encourage the participant to set realistic, achievable steps and goals.

"What changes would you ultimately like to achieve? What steps are you thinking about taking in order to get started? When would be best for you to begin taking these steps? How do you plan to continue to change your eating habits so that you can achieve your ultimate goal? How realistic is this plan, given your schedule, physical health and other responsibilities you have? How will you manage situations where you have less control over your food choices, such as at parties, restaurants, when on the go..."

3. Remind the participant to reward him/herself each time a goal is met

"It is important that you reward yourself when you meet one of your goals in order to keep yourself motivated to continue. Rewards can be simple things like visiting or talking with friends, buying yourself flowers or new clothes, or watching a movie."

4. Encourage the participant to identify low-fat, nutritious foods that he/she enjoys so that he/she doesn't feel deprived.

"It is important to find healthful foods that you enjoy, so that you don't feel like you are depriving yourself: Look through cookbooks and magazines to find tasty, simple, and healthful recipes that are quick and easy to prepare. Experiment with new fruits and vegetables to avoid getting bored with your food choices."

PARTNERSHIP FOR HEALTH
PROCESS EVALUATION FOR INTERVENTION PHONE CALL #1

Day and Date: _____ **Phone Call #:** _____ **Total Time Spent:** _____
Participant's Initials: _____ **Participant's ID #:** _____
Counselor's Name: _____ **Case ID#:** _____

DID YOU:

A. ADDRESS THE AGENDA: INTRODUCTION AND RAPPORT BUILDING

- | | | |
|---|---|---|
| 1. Introduce yourself and the <i>Partnership for Health Study</i> | Y | N |
| 2. Ask if participant received manual | Y | N |
| a. if participant received manual, discuss contents | Y | N |
| b. if participant did not receive manual, offer to send another | Y | N |
| 3. Review <i>Personalized Health Profile</i> | Y | N |
| 4. Describe your cancer experience and learn more about the participant's | Y | N |

B. ASSESS

- | | | |
|--|---|---|
| 1. Current Health Behaviors (use <i>Health Behaviors & Decision Making Worksheet</i>) | Y | N |
| 2. Smoking Status | | |
| a. Confirm how much participant smokes each day. | Y | N |
| if smoking rate has changed, note current rate: _____ cigarettes/day | | |
| smoking rate is (down or up) from previous rate of: _____ cigarettes/day | | |
| b. What made participant start smoking? | Y | N |
| Participant started smoking because: _____ | | |
| c. What does participant know about his/her health risks from smoking? _____ | | |
| d. Offer to send participant more information about 2c. | Y | N |
| send the following materials: _____ | | |
| 3. The Pros & Cons of Smoking (use <i>Health Behaviors & Decision Making Worksheet</i>) | Y | N |

4. Desire and Confidence to Quit Smoking Y N

a. How much does participant want to quit? 0 = not at all; 10 = very much _____

b. how confident is the participant that he/she can quit? 0 = not at all; 10 = very confident _____

C. ADVISE THE PARTICIPANT ABOUT THE BENEFITS OF QUITTING

1. Provide a clear recommendation to quit smoking. Y N

2. Encourage participant to think about quitting smoking (personalize reasons) Y N

3. Encourage participant to read manual, personalized health profile and tip sheets Y N

D. ASSESS READINESS TO CHANGE (CIRCLE WHICH CATEGORY PARTICIPANT FALLS INTO)

1. I'm not ready to make any changes in my smoking or anything else right now.
2. I'm not ready to make any changes in my smoking right now, but there are other changes I would like to make in my life.
3. I have recently made changes in my smoking.
4. I am ready to make some changes in my smoking, but I'm not ready to quit right now.
5. I am ready to quit smoking right now.
6. I have just recently quit smoking.
7. Other (if none of the above responses fit, specify where participant is at): _____

E. ASSIST IN SETTING GOALS, BASED ON READINESS TO CHANGE AS IDENTIFIED ABOVE

1. IF ANSWERED 1 OR 2: NOT READY TO MAKE CHANGES IN SMOKING:

a. Did the counselor:

1. highlight the good and not so good things about the participant's smoking? Y N

2. encourage the participant to think more about their risks from smoking? Y N

b. List things participant agrees to think about:

1. _____

2. _____

3. _____

4. _____

2. IF ANSWERED 4 OR 5: IS READY TO MAKE CHANGES IN SMOKING:

a. Did the counselor:

- | | | |
|--|---|---|
| 1. review behavioral strategies for cutting back or quitting,
(e.g., setting a quit date, removing cigarettes, ashtrays, lighters from home)? | Y | N |
| 2. offer free nicotine patches and describe procedure for dispensing? | Y | N |

b. Did the participant agree to:

- | | | |
|---|---|---|
| 1. Cut back on smoking? | Y | N |
| 2. Limit smoking to certain situations or places? | Y | N |
| 3. Set a quit date?: _____ | Y | N |
| 4. Try the nicotine patch? | Y | N |

c. List other strategies the participant agrees to try:

1. _____
2. _____
3. _____
4. _____

3. IF ANSWERED 3: RECENTLY MADE CHANGES IN SMOKING:

a. Did the counselor:

- | | | |
|--|---|---|
| 1. assess benefits the participant has gained from these changes? | Y | N |
| 2. encourage the participant to think about or make further changes? | Y | N |

b. List further changes participant agrees to think about or make:

- _____
- _____
- _____
4. _____

4. IF ANSWERED 6: **RECENTLY QUIT SMOKING:**

a. Did the counselor:

- | | | |
|--|---|---|
| 1. assess benefits the participant has gained from quitting? | Y | N |
| 2. discuss how participant will handle tempting situations? | Y | N |

b. List potentially tempting situations and how the participant might handle them:

1. _____
2. _____
3. _____
4. _____

5. IF ANSWERED 2-7: and **IS INTERESTED IN CHANGING OTHER HEALTH BEHAVIORS:**

a. Did the counselor:

- | | | |
|--|---|---|
| 1. ask about other health behaviors the participant might want to change? | Y | N |
| 2. help the participant identify specific steps to think about or change this behavior(s)? | Y | N |

b. List behaviors participant would like to change, and steps participant agrees to think about or make:

1. _____
2. _____
3. _____
4. _____

F. ARRANGE FOLLOW-UP TO DISCUSS SMOKING AT NEXT PHONE CALL

- | | | |
|---|---|---|
| 1. Offer to call participant to discuss thoughts, comments, or how changes are going? | Y | N |
|---|---|---|
- Proposed time frame for next call - offer to call within:
- 48 hours of his/her target quit date;
 - 2 weeks if participant is going to make any changes, but not fully quit
 - one month if participant is not going to make any changes.

2. Next call scheduled for:

Date:

Time:

G. COUNSELOR'S SUBJECTIVE RATING OF INTERVENTION CALL:

1 2 3 4 5
Not at all Somewhat Very Much

1. To what extent did you express empathy for the participant's thoughts and feelings about smoking? _____

2. To what extent did you use reflective listening to highlight the participant's ambivalence about their smoking? _____

1 2 3 4 5
Very Negative Neutral Very Positive

3. How would you rate the participant's response to this phone call? _____

H. COMMENTS PERTAINING TO INTERVENTION CALL:

D. ASSIST IN SETTING GOALS, BASED ON READINESS TO CHANGE AS IDENTIFIED ABOVE

1. IF ANSWERED 1 OR 2: NOT READY TO MAKE CHANGES IN SMOKING:

a. Did the counselor:

1. highlight the good and not so good things about the participant's smoking? Y N

2. encourage the participant to think more about his/her risks from smoking? Y N

b. List things participant agrees to think about:

1. _____

2. _____

3. _____

4. _____

2. IF ANSWERED 4 or 5: IS READY TO MAKE CHANGES IN SMOKING:

a. Did the counselor:

1. review behavioral strategies for cutting back or quitting,
(e.g., setting a quit date, removing cigarettes, ashtrays, lighters from home)? Y N

2. offer free nicotine patches and describe procedure for dispensing? Y N

b. Did the participant agree to:

1. Cut back on smoking? Y N

2. Limit smoking to certain situations or places? Y N

3. Set a quit date?: _____ Y N

4. Try the nicotine patch? Y N

c. List other strategies the participant agrees to try:

1. _____

2. _____

3. _____

4. _____

3. IF ANSWERED 3: **RECENTLY MADE CHANGES IN SMOKING:**

a. Did the counselor:

- | | | |
|--|---|---|
| 1. assess benefits the participant has gained from these changes | Y | N |
| 2. encourage the participant to think about or make further changes? | Y | N |

b. List further changes participant agrees to think about or make:

1. _____

3. _____
4. _____

4. IF ANSWERED 6: **RECENTLY QUIT SMOKING:**

a. Did the counselor:

- | | | |
|--|---|---|
| 1. assess benefits the participant has gained from quitting? | Y | N |
| 2. discuss how participant will handle tempting situations? | Y | N |

b. List potentially tempting situations and how the participant might handle them:

- _____
- _____
3. _____
4. _____

5. IF ANSWERED 2-7: and **IS INTERESTED IN CHANGING OTHER HEALTH BEHAVIORS:**

a. Did the counselor:

- | | | |
|--|---|---|
| 1. ask about other health behaviors the participant might want to change? | Y | N |
| 2. help the participant identify specific steps to think about or change this behavior(s)? | Y | N |

List behaviors participant would like to change, and steps participant agrees to think about or make:

1. _____
2. _____
3. _____
4. _____

E. ADVISE ABOUT USING THE MATERIALS

- | | | |
|--|---|---|
| 1. Encourage participant to read manual, personalized health profile & tip sheets. | Y | N |
|--|---|---|

F. ARRANGE FOLLOW-UP TO DISCUSS SMOKING FOR NEXT PHONE CALL

FOR CALLS 2-5

- | | | |
|---|---|---|
| 1. Offer to call participant to discuss thoughts, comments, or how changes are going
Proposed time frame for next call - offer to call within:
- 48 hours of his/her target quit date;
- 2 weeks if participant is going to make any changes, but not fully quit
- one month if participant is not going to make any changes. | Y | N |
|---|---|---|

2. Next call scheduled for	Date:	Time:
----------------------------	-------	-------

3. If participant does not want additional phone calls at any point, review steps 6 and 7 under **CALL 6**.

FOR CALL 4

- | | | |
|---|---|---|
| 4. Encourage participant to access local resources to address smoking or other health behavior change, when needed. | Y | N |
|---|---|---|

FOR CALL 5

- | | | |
|--|---|---|
| 5. Remind participant that next call will be the last. | Y | N |
|--|---|---|

FOR CALL 6 OR LAST INTERVENTION CALL

- | | | |
|---|---|---|
| 6. Remind participant that someone from the project will be calling to conduct the next survey in about 2 months. | Y | N |
| 7. Thank participant for taking the time to discuss smoking and other other health behaviors. | Y | N |

G. COUNSELOR'S SUBJECTIVE RATING OF INTERVENTION CALL:

1	2	3	4	5
Not at all		Somewhat		Very Much

1. To what extent did you express empathy for the participant's thoughts and feelings about smoking? _____

2. To what extent did you use reflective listening to highlight the participant's ambivalence about their smoking? _____

1 2 3 4 5
Very Negative Neutral Very Positive

3. How would you rate the participant's response to this phone call? _____

H. COMMENTS PERTAINING TO INTERVENTION CALL:

Sleep Hygiene

**Behaviors that help
promote sound sleep**



A wellness booklet from



American Sleep Disorders Association

Sleep Hygiene

**Behaviors that help
promote sound sleep**



A wellness booklet from



American Sleep Disorders Association

Dear reader:

Sleep is not merely “time out” from daily life. It is an active state essential for mental and physical restoration. More than 100 million Americans of all ages, however, regularly fail to get a good nights sleep.

Some 84 disorders of sleeping and waking result in diminished quality of life and personal health, and endanger public safety through their contribution to traffic and industrial accidents. These disorders include those leading to problems falling asleep and staying asleep, difficulties staying awake or adhering to a consistent sleep/wake cycle, sleepwalking, bedwetting, nightmares, and other problems that interfere with sleep. Some sleep disorders are potentially fatal.

Sleep disorders are diagnosed and treated by a wide variety of healthcare providers, including general practitioners and specialists in neurology, pulmonary medicine, psychiatry, psychology, pediatrics and other fields. The American Sleep Disorders Association (ASDA) was founded in 1987 to increase awareness of sleep disorders among the public and professional communities. The ASDA is the fields major national organization. We represent several thousand clinicians and researchers in sleep disorders medicine.

For more information about sleep disorders, contact your healthcare provider. For a list of accredited member sleep disorders centers near you, write to us.

Sincerely,

**American Sleep Disorders Association
6301 Bandel Road, Suite 101
Rochester, MN 55901
Visit our web site: <http://www.asda.org>**

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For most people, falling asleep and staying asleep are parts of a natural process.

Good sleepers are likely to have developed certain lifestyle and dietary habits that promote sound sleep. These habits or behaviors—known as *sleep hygiene*—can have positive effects on sleep before, during, and after time spent in bed. For the most part, sleep hygiene is a matter of common sense, and the techniques suggested in this booklet will help most people sleep better.

Stimulants

Caffeine stimulates the brain and interferes with sleep. Coffee, tea, colas, cocoa, chocolate, and prescription and nonprescription drugs that contain caffeine should not be taken within three to four hours of bedtime.

Although moderate daytime use of caffeine usually does not interfere with sleep at night,

heavy or regular use during the day can lead to withdrawal symptoms and to sleep problems at night.



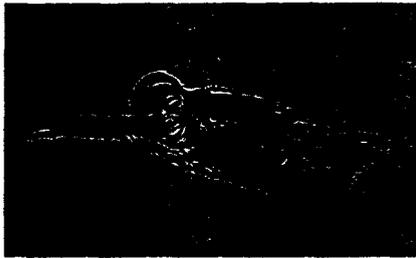
Nicotine is another stimulating drug that interferes with sleep, and nicotine withdrawal can also disrupt sleep throughout the night. Cigarettes and some drugs contain substantial quantities of nicotine. Smokers who break the habit, once they overcome the withdrawal effects of the drug, can expect to fall asleep, faster and wake up less during the night.

Alcohol

One of the effects of alcohol is a slowing of brain activity. When taken at bedtime, alcohol may help induce sleep at first, but will disrupt sleep later in the night. A “nightcap” before bed can result in awakenings during the night, nightmares, and early morning headaches. Alcoholic beverages should be avoided within four to six hours of bedtime.

Exercise

Regular exercise helps people sleep better; the benefits of exercise on sleep, however, depend on the time of day it is undertaken and on your overall fitness level. People who are physically



fit should avoid exercising within six hours of bedtime. Exercise in the morning is not likely to affect sleep at night, but the same amount of exercise—if done too close to bedtime—can disrupt sleep. On the other hand, too little exercise and limited activity during the day can also lead to sleeplessness at night. Consult a healthcare provider before beginning an exercise program.

Environment

A comfortable bed in a dark, quiet room is the best setting for a good night’s sleep. Some people seem to adjust easily to changes in sleep environment, but others (such as insomniacs and the elderly) can be easily disturbed by small changes in sleep surroundings. When excessive

A light snack at bedtime can promote sleep

light is a problem, blackout curtains and spot lighting can be helpful. Noise problems can be alleviated with the use of background sound (“white noise”) or earplugs.

Diet

Eating a full meal shortly before bedtime can interfere with the ability to fall asleep and stay asleep, as can heavy meals eaten at any time of day or foods that cause indigestion. A light snack at bedtime, however, can promote sleep. Milk and other dairy products, which contain the natural sleep-promoting substance tryptophan, are especially good as bedtime snacks.

Decreasing Time Awake in Bed

Stress contributes to many sleep problems. People who have trouble sleeping sometimes begin to rely on certain strategies—such as regular napping, excessive use of caffeine, use of alcoholic beverages at bedtime, working at night, and sleeping at irregular times—to help adapt to a disturbed sleep schedule. After the source of stress that led to the sleep problem is eliminated, these behaviors can sometimes cause sleep problems to continue. A cycle of repeated difficulty in falling asleep develops, and tension and a fear of sleeplessness can result. The bedroom itself can come to be associated with unsuccessful attempts to sleep and with tension and anxiety. Some people who have trouble sleeping will begin sleeping on a

sofa or in a chair because they are no longer able to sleep in the bedroom. This phenomenon, termed *conditioning*, may respond to one of two treatment techniques: stimulus control and sleep restriction.

Stimulus control attempts to reestablish the connection between sleep and the bedroom. This is done by reducing the amount of time spent lying awake in bed. Table 1 at the back of this booklet lists instructions for stimulus control treatment. The principles of good sleep hygiene and stimulus control are often used together to relieve sleeplessness.

Sleep restriction works by reducing the amount of time spent in bed to the estimated time period spent actually sleeping. Sleep restriction techniques, which can be learned from a sleep specialist, include recording the time you spend in bed and the time you spend asleep each day for one to two weeks. The amount of time spent in bed is then restricted to the time spent actually sleeping. As sleep quality improves, the sleep schedule is adjusted as appropriate. Sleep restriction prescribes a specific amount of sleep but not a mandatory time period in bed. Stimulus control and sleep hygiene guidelines may be used in combination with sleep restriction.

Clock-watching should be avoided by people experiencing sleep problems, especially those with insomnia. It can be helpful to set the alarm for the desired morning arise time, and then hide the clock and watches in a dresser drawer across the room. Most people experiencing sleep problems sleep best when time pressures are relieved.

Relaxation exercises, meditation, biofeedback, and hypnosis are sometimes beneficial in controlling sleep problems

Managing Stress

As mentioned earlier, the stress that stems from common life situations often contributes to sleep problems. A relaxing activity around bedtime can help relieve tension and encourage sleep. Consciously attempting to clarify problems and formulate solutions can have a positive effect on sleep quality. Talking with a trusted friend or colleague to “air out” troubling issues can be helpful. Relaxation exercises, meditation, biofeedback, and hypnosis are sometimes beneficial in controlling sleep problems. These techniques should be learned from a psychologist, physician, or other healthcare professional.

Designating “Worry Time”



Another technique that can be helpful is to designate a particular time for worry. This time is dedicated to sorting out problems and coming up with possible solutions. Set aside 30 minutes in the evening to sit alone and undisturbed. On 3 x 5 cards, write down each of your wor-

ries as it comes to mind (one worry per card). These worries can range from the mundane (needing to call someone in the morning or remembering an anniversary) to the serious (financial concerns or problems with a relationship). When all worries have been written down, sort the cards into three to five piles according to the priority of the worry. Next, look at each card and formulate a possible solution to that worry. While not all worries will have easy solutions, even small progress in remedying a worry can yield helpful results. The morning after recording your worries, review the worry cards and begin to work on resolving the worries you've identified.

Summary

Good sleep hygiene will improve the sleep of many people (see Table 2 at the back of this booklet). Stimulus control and sleep restriction strategies, although they are challenging techniques to master, improve the likelihood of a successful outcome. If sleeplessness persists after four to six weeks of modifying sleep and daytime habits as described earlier, it's time to consider seeking professional help from a healthcare provider or an expert in sleep disorders.

TABLE 1

Instructions for stimulus control management for sleep problems

1. Try to sleep only when you are drowsy.
 2. If you are unable to fall asleep or stay asleep, leave your bedroom and engage in a quiet activity elsewhere. Do not permit yourself to fall asleep outside the bedroom. Return to bed when-and only when-you are sleepy. Repeat this process as often as necessary throughout the night.
 3. Maintain a regular arise time, even on days off work and on weekends.
 4. Use your bedroom only for sleep and sex.
 5. Avoid napping during the daytime. If daytime sleepiness becomes overwhelming, limit nap time to a single nap of less than 1 hour, no later than 3 p.m.
-

Table 2

Sleep hygiene instructions

1. Avoid caffeine within four to six hours of bedtime.
 2. Avoid the use of nicotine close to bedtime or during the night.
 3. Do not drink alcoholic beverages within four to six hours of bedtime.
 4. While a light snack before bedtime can help promote sound sleep, avoid large meals.
 5. Avoid strenuous exercise within 6 hours of bedtime.
 6. Minimize light, noise, and extremes in temperature in the bedroom.
-

Further Reading on Sleep Hygiene

Bodyrhythms: Chronobiology and Peak Performance, by Lynne Lamberg (William Morrow and Company, Inc., 1994)

No More Sleepless Nights, by Peter Hamuri, PhD, and Shirley Linde, PhD (John Wiley and Sons, Inc. 1990)

Encyclopedia of Sleep and Dreaming, edited by Mary A. Caskadon, PhD (New York: Macmillan, 1992)

Wellness booklets available through the American Sleep Disorders Association

Circadian Rhythms
Coping with Shift Work
Insomnia
'My Child Can't Sleep'
Narcolepsy
Overnight Sleep Studies
Parasomnias
Positive Airway Pressure Therapy for Sleep Apnea
Restless Legs Syndrome and Periodic Limb Movement Disorder
Sleep and Depression
Sleep as We Grow Older
Sleep Apnea
Sleep Hygiene
Sleep Problems in Children: A Parent's Guide
Sleep in Women
Treatment Options for Obstructive Sleep Apnea Syndrome

Important points from the article “Smoking and Reproductive Health”
by Edith Weisberg

Effects of smoking on pregnancy and postnatal development

- babies born to smokers are 150-200 grams lighter than babies born to non-smokers
- smoking increases the risk of premature delivery
- one study showed an overall increase in perinatal mortality among babies born to smoking mothers
- early fetal deaths may be due to anoxia (lack of oxygen) associated with maternal smoking
- neonatal deaths occur mainly because of premature delivery and the associated immaturity, asphyxia and respiratory distress
- smoking reduces the supply of oxygen to the fetus, and oxygen is the most crucial factor for maintaining life. The fetus compensates for the lack of oxygen (hypoxia) by increased hemoglobin and red cell production, reduced oxygen consumption and redistribution of blood flow in order to favor the most vital parts. Another adaptation is lower fetal weight and increased placental surface area, with decreased thickness
- nicotine crosses the placenta into the fetal circulation. This can affect fetal breathing patterns and blood circulation. This may cause the placenta to separate from the uterine wall, called abruptio placentae. This is the second most common cause of perinatal mortality in North America.
- the low birthweight of babies born to smokers is due to a total reduction in size rather than simple thinness

- one study found that at the age of seven, children of mothers who had smoked more than 10 cigarettes a day during pregnancy weighed less and were on average 1 cm shorter than children born to non-smokers
- children of smokers were more likely to be hospitalized and for longer periods and suffer more respiratory disease than those of non-smokers
- Sudden Infant Death syndrome has been associated with maternal smoking during pregnancy and with maternal smoking postnatally
- because nicotine crosses the placenta, the fetus may be born physically dependent and undergo a withdrawal reaction postnatally
- nicotine is also present in the breast milk of mothers who smoke

Fertility after Cancer Treatment

Male Fertility

Treatment for cancer can affect two aspects of male fertility:

- germ-cell depletion: this is reduced sperm production causing azoospermia (no sperm) or oligospermia (low sperm count)
- abnormalities of gonadal endocrine function: damage to the Leydig cells results in inadequate production of testosterone; and germ-cell depletion is associated with increases in FSH (follicle stimulating hormone)

Effect of anti-cancer treatments on male fertility:

Radiation:

- the effect of radiation varies depending upon age at diagnosis
- the effect on fertility generally follows a dose-response relationship
- in some cases, the effect is reversible after a period with no radiation treatment
- radiation to the spine may be associated with delayed onset of puberty
- radiation to the pelvis/gonads may result in azoospermia and Leydig cell dysfunction
- some men treated for Hodgkin's disease became azoospermic without recovery despite lead shielding of the scrotum
- treatment for Wilm's tumor has resulted in oligospermia and azoospermia in a majority of cases
- prepubertal testicular germ cells appear to be radiosensitive, but damage may be difficult to assess until the patient has undergone puberty

Chemotherapy:

- the testes are susceptible to chemotherapeutic agents because they target cells with high cell turnover rates
- the effects are dose-dependent
- a variety of alkylating agents and the methylhydrazine procarbazine decrease spermatogenesis, resulting in azoospermia
- MOPP and ABVD are also associated with azoospermia. The ABVD treatment seems to result in less azoospermia and higher recovery rates than the MOPP treatment
- decline in libido is common and is unrelated to testosterone levels

Surgery:

- surgery on the male gonads may result in impotence or retrograde ejaculation (bilateral retroperitoneal lymph node dissection or partial or complete pelvic exenteration)
- hypogonadism may be caused by surgical resection of the hypothalamus or pituitary gland

Treatment implications

Pretreatment sperm banking has become popularized. This may not be an option for all types of cancer, because many men being treated for cancer (such as Hodgkin's disease, primary testicular cancer, and diverse metastatic cancers) have a lower than expected sperm count and decreased sperm motility at the time of diagnosis.

Hormone replacement therapy may be indicated to raise levels of testosterone.

Female Fertility

Ovarian failure results in primary or secondary amenorrhea, increased luteinizing hormone and follicle stimulating hormone levels with or without symptoms of menopause and loss of libido. Primary amenorrhea is defined as the failure to initiate or complete puberty. Secondary amenorrhea is premature menopause (before 40 years.) The depletion of germ cells may lead to early menopause.

Radiation

- total body irradiation has been associated with primary and secondary amenorrhea and absence of secondary sexual characteristics
- the effect of radiation on the ovaries will depend on both the site of radiation (distance from the ovaries) and the dose
- ovarian failure may be reversible in some girls – in months or years after treatment they will recover regular menses and have normal FSH and oestradiol concentrations

Chemotherapy

- girls treated before puberty are less affected than children treated during or after puberty
- treatment with alkylating agents (i.e. cyclophosphamide) is much more gonadotoxic than treatment with non-alkylating agents (i.e. adramycin)
- the damage is dose dependent

Effect of different treatments

Radiation alone seems to be the least gonadotoxic, followed by combination chemotherapy. The most toxic seems to be a combination of radiation and chemotherapy.

Treatment Implications

Girls with ovarian failure will require oestrogen replacement therapy. Prospects for fertility are good in the early childbearing years where there is no ovarian failure or there is recovery of normal function. Early menopause may still occur and childbearing ability may decline rapidly with age.

The use of oral contraceptives to suppress ovarian function and thus make the ovaries resistant to the effects of chemotherapy is currently under investigation.

Effect of Smoking on Fertility

Smoking is one behavioral factor which has been shown to impact negatively on conception. Epidemiologic studies have demonstrated a consistent and highly significant trend of decreased fertility with increasing number of cigarettes per day, especially in women smoking more than 16 per day. One meta-analysis found an overall odds ratio of 1.6 (95% confidence interval 1.34-1.91.), so that female smokers were 1.6 times as likely to be infertile as non-smokers. Negative effects of smoking are amplified by the fact that nicotine is ten times more concentrated in the uterine fluid than it is in plasma. Smoking may also reduce male fertility by decreasing sperm density and in some cases, affecting motility and morphology.

References

Augood, C., Kuckitt, K., Templeton, A. A. Smoking and female infertility: a systematic review and meta-analysis. *Human Reproduction*, Vol. 13, No. 6, 1532-1539, 1998.

Blatt, J., and Bleyer, W. Late effects of childhood cancer and its treatment. *Pediatric Oncology*. 1003-1025.

Byrne, J., Lewis, M., Halamek, L, Connelly, R., and Mulvihill, J. Childhood cancer survivors' knowledge of their diagnosis and treatment. *Annals of Internal Medicine*, Vol. 110, No. 5, 400-403, 1989.

Davies, H. Late problems faced by childhood cancer survivors. *British Journal of Hospital Medicine*, Vol. 50, No. 2/3, 137-140, 1993.

Galvin, H. The late effects of treatment of childhood cancer survivors. *Journal of Cancer Care*, 3, 128-133, 1994.

PARTNERSHIP FOR HEALTH

Date

- *SAMPLE LETTER* -

Dear Dr. Lulu,

Joe Survivor is participating in the Partnership for Health study, a collaboration with the University of Minnesota Long Term Follow-Up study. He/she has identified you as her/his primary health care provider and has given us permission to contact you.

The Partnership for Health study is a study that is being conducted through the Dana Farber Cancer Institute, with a grant from the National Cancer Institute. The goal of our study is to evaluate a state-of-the-art smoking intervention that was designed especially for childhood cancer survivors. Childhood cancer survivors are a large and growing population and it is of special concern that almost one out of every five smoke. Joe Survivor is one of these people.

We are reaching out to health care providers of smokers for two reasons. The first is to notify you about your patient's involvement in our study and elicit your support. Health care providers can have a tremendous impact on a patient's decision whether or not to smoke. Within this population of childhood survivors, your help is critical. We have provided some information about elevated health risks of smoking within this special population. We hope that you will find this information to be helpful.

Enclosed you will find a packet that includes:

- ⇐ Some basic facts about adult survivors of childhood cancer sheet
- ⇐ Chart Stickers
- ⇐ Helping Smokers Quit: A Guide for the Primary Care Clinician

As part of the study, we can provide free nicotine replacement therapy to all eligible participants who would like to use it. If your patient requests NRT, we will notify you and ask for your approval for your patient to use NRT. We will ask you, at that time, to indicate whether you would like to have the product mailed to your office, to dispense directly to your patient, or have us mail the product directly to him/her.

We would like to thank you in advance for your cooperation with this study. We are excited to be able to offer this program to your patient and thank you for your time. If you have any questions, please call xxxxxxxxx.

Sincerely,

Fred Li, M.D. Karen Emmons, Ph.D.
Dana Farber Cancer Institute

PARTNERSHIP FOR HEALTH

DATE

PATIENT NAME:

DOB:

AS PART OF THE PARTNERSHIP FOR HEALTH PROGRAM AT THE DANA FARBER CANCER INSTITUTE, JOE SURVIVOR WILL BE RECEIVING NICOTINE REPLACEMENT THERAPY. JOE SURVIVOR IS PRESENTLY A SMOKER AND HAS REQUESTED

Getting help

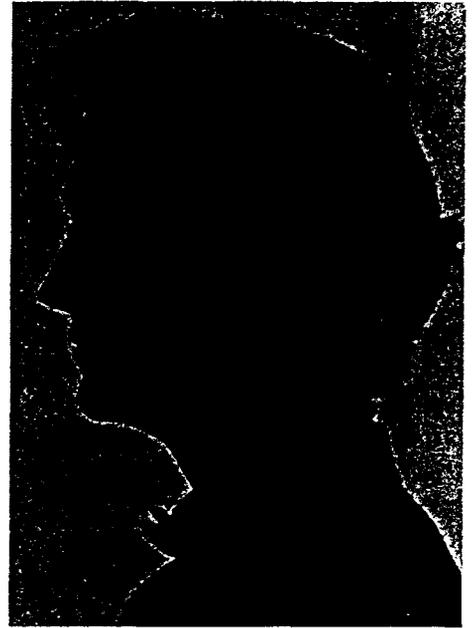
If you find yourself needing more support in the future, you're not alone! Some former smokers find that they want to smoke from time to time. When this happens, it's important to reach out to people who can help you keep your commitment to remaining smoke-free.

Below are some resources to get you started if you need them. You can also speak with your peer counselor about additional places to get help.

- The American Lung Association
1-800-LUNG-USA (1-800-586-4872)
<http://www.lungusa.org>
- The American Cancer Society
1-800-ACS-2345 (1-800-227-2345)
<http://www.cancer.org>
- Local stop-smoking support groups (check your local hospital)
- Local stop-smoking hotline numbers (check your phone book)

Insomnia

**The inability to
fall asleep
or stay asleep**



A wellness booklet from



American Sleep Disorders Association

Dear reader:

Sleep is not merely “time out” from daily life. It is an active state essential for mental and physical restoration. More than 100 million Americans of all ages, however, regularly fail to get a good night’s sleep.

Some 84 disorders of sleeping and waking result in diminished quality of life and personal health, and endanger public safety through their contribution to traffic and industrial accidents. These disorders include those leading to problems falling asleep and staying asleep, difficulties staying awake or adhering to a consistent sleep/wake cycle, sleepwalking, bed-wetting, nightmares, and other problems that interfere with sleep. Some sleep disorders are potentially fatal.

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Sincerely,

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Rochester, MN 55901
www.asda.org

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Insomnia disturbs your waking hours as well as your sleeping hours



Trouble falling asleep or staying asleep—commonly termed insomnia—plagues one in three American adults. If you suffer from insomnia, it disturbs your waking hours as well as your sleeping hours, since you’re likely to feel sleepy during the day and have trouble concentrating on tasks after a poor night’s sleep.

Understanding insomnia presents an interesting puzzle: It’s clear that trouble sleeping at night can make you sleepy during the day, but why can’t you fall asleep easily at bedtime or sleep through the night?

Recent advances in understanding both the day and night components of insomnia are making it possible for healthcare providers to help most troubled sleepers.

Types of Insomnia

Insomnia afflicts people of all ages, most often just for a night or two, but sometimes for weeks, months, or even years

Transient insomnia

Transient insomnia is an inability to sleep well over a period of a few nights. This type of insomnia is usually brought on by excitement or stress. Children; for example, may toss and turn just before school starts in the fall, or before an important exam or sports event. Adults often sleep poorly before a key meeting at work or after a spat with their spouse. People are more likely to have trouble sleeping when they are away from home, especially if they have traveled across several time zones. A vigorous workout too close to bedtime (within four hours) or an illness can also temporarily disrupt sleep.



Short-term insomnia

Periods of ongoing stress at work or at home can result in two to three weeks of poor sleep. When the stressful situation subsides, or when the sleeper becomes accommodated to it, sleep will usually return to normal.

Chronic insomnia

More than 35 million Americans complain of chronic insomnia—poor sleep every night or most nights. While most insomniacs worry about their sleep, it's wrong to blame all trou-

**More than 35 million Americans
complain of chronic insomnia**

bled sleep on worrying. According to a nationwide study by the Association of Sleep Disorders Centers, physical ailments—such as disorders of breathing or muscle activity—are the cause of more than half of all cases of persistent insomnia.

What causes insomnia? What helps?

Insomnia is a symptom of another problem, much like a fever or a stomachache. It can be caused by any of a number of factors.

Psychological factors

Vulnerability to insomnia: Some people seem more likely than others to experience insomnia during times of stress, just as some people might tend to have headaches or indigestion. Knowing that the problem may occur and that will subside can be helpful in coping with bouts of poor sleep.

Persistent stress: Problems such as a troubled marriage, a chronically ill child, or an unrewarding career can often contribute to poor sleep. People with these problems can be helped by counseling to gain a new outlook on their continuing troubles and to exert more control.

Psychiatric problems: Insomnia-especially with awakenings earlier than desired-is one of the most common symptoms of depression. People with anxiety, schizophrenia, and other psychiatric disorders may also sleep poorly. Treatment of the underlying disorder, often including both medication and psychotherapy, can help improve sleep.

Lifestyle

Use of stimulants: The use of caffeine near bedtime, even when it doesn't interfere with the onset of sleep, can trigger awakenings later in the night. Nicotine is also a stimulant, and smokers may take longer to fall asleep than non-smokers. Ingredients of many common drugs, including nonprescription drugs for weight loss, asthma, and colds, can interfere with sleep.

Use of alcohol: A nightcap, while it may help induce sleep, is likely to make sleep more fragile throughout the night.

Erratic hours: Shift workers (those who work nontraditional hours, such as nights or rotating shifts), along with those who maintain later hours on weekends than during the week, are likely to experience sleep problems.

Maintaining regular hours can help program the body to sleep at certain times and to stay awake at others.

Inactive behavior: People, whose lifestyles are very quiet or restricted may find it difficult to sleep at night because of their inactivity during the day.

If used every night, sleeping pills stop being effective after a few weeks

Learned insomnia: People who sleep poorly during times of stress are likely to worry about not being able to function effectively during the day. They resolve to try harder to sleep at night, and unfortunately this determined effort makes them more alert and sets off a new round of worried thoughts.

Activities in and around the bedroom—changing into night clothes, turning off the lights, pulling up the blankets—serve as cues that encourage wakefulness. People who have trouble sleeping in their own beds may fall asleep quickly when they don't intend to—while reading the newspaper, watching TV, or driving, for example. Even a few nights of poor sleep during a month can be all it takes to maintain this cycle of poor sleep and continuing concern about poor sleep. Treatment for this type of insomnia aims to improve sleep habits and defuse the accompanying anxiety.

Misuse or overuse of sleeping pills: If used every night, sleeping pills stop being effective after a few weeks. When their use is stopped suddenly, however, sleep can be temporarily worsened. This problem can be reduced by cutting back gradually on the use of sleeping pills. A healthcare provider should oversee this process.

Environmental factors

Noise: Passing traffic, airplanes, television and other noises can disturb sleep even when they don't cause the sleeper to wake up.

Light comes through the eyelids even when the eyes are closed.

Physical illness

Breathing disorders: Certain disorders can cause repeated interruptions in breathing during sleep which can rouse a sleeper dozens or even hundreds of times a night. These pauses can be as short as 10 seconds and may not be remembered in the morning. They are sufficient, however, to produce restless sleep.

Severely disrupted breathing during sleep (sleep apnea) may affect people who breathe normally while they are awake. Excessive relaxation of the muscles used in breathing, or trouble with the brain's control of the breathing process, sometimes occur during sleep.

Breathing-related sleep disruption becomes more common with advancing age. Most cases are mild and don't require treatment, but it's generally wise to avoid sleeping pills, which can make breathing problems worse.

Severe cases of sleep apnea often benefit from a treatment known as *continuous positive airway pressure*. This treatment keeps the breathing passages open with a steady stream of air delivered through a mask worn over the nose and mouth during sleep.

Periodic leg movements: Brief muscle contractions can cause leg jerks that last a second or two and occur roughly every 30 seconds

Severe cases of sleep apnea often benefit from a treatment known as continuous positive airway pressure

(often for an hour or longer) several times a night. These movements can cause hundreds of microarousals each night, resulting in restless sleep. Periodic limb movements become more frequent and severe as people grow older. Treatment can include sleeping pills, pain-relieving drugs, evening exercise, a warm bath or a combination of these. Iron replacement can be helpful in people who have an iron deficiency, especially if they also experience restless legs.

Waking brain activity that persists during sleep
Sleep monitoring during the night demonstrate that some people who complain of light or non-restorative sleep fail to sink fully into sleep.

Gastroesophageal reflux: The back-up of stomach contents into the esophagus (commonly known as *heartburn*, because of the pain or tightness it produces in the midchest area) can awaken a person several times a night. When reflux occurs during the day, a few swallows and an upright position will usually clear the irritating materials from the esophagus. During sleep, less-frequent swallowing and a lying-down position can lead reflux to result in waking up coughing and choking. Elevation of the head of the bed on 6- to 8-inch blocks can help

prevent reflux. Medications can also provide relief.

Pain: Disorders such as arthritis, angina, lower back pain, fibromyalgia, and headache may upset sleep and waking hours. Sometimes a change in the positioning of pillows, the correct mattress, and pre-sleep behavior can make a difference. A healthcare provider can provide guidance and assistance.

When to seek help

If your sleep has been disturbed for more than a month and interferes with the way you feel or function during the day, see your healthcare provider, or ask for a referral to a sleep disorders specialist. Your medical history, a physical exam, and laboratory tests--such as hormone function testing—may help identify certain causes. Your bedpartner and other household members may have useful information about your sleep, such as whether you snore loudly or sleep restlessly. Your healthcare provider will also need to know whether insomnia makes you sleepy or depressed or affects your life in other ways.

Sometimes insomnia can be lessened through education and information. Some people naturally sleep less than others, and merely need to abandon the mistaken belief that everybody needs eight hours of sleep. Counseling can help people whose insomnia stems from poor sleep habits. In other cases, medication or evaluation at a sleep disorders center may be prescribed.

As part of the evaluation at a sleep disorders center, the patient may be asked to keep a sleep

Some people naturally sleep less than others

diary showing sleeping and waking patterns for a week or two. At the sleep center, patients can expect a comprehensive physical and psychological examination.

Can sleeping pills help?

Sleeping pills can help provide sounder sleep and can improve alertness the following day. This relief is only temporary, since sleeping pills are not a cure for insomnia. For some types of insomnia--such as that resulting from breathing disorders--sleeping pills can be dangerous. Insomnia needs to be properly diagnosed and treatment options discussed with a healthcare provider before treatment with medications is undertaken.

Sleeping pills may help with the following conditions:

Jet lag: Changes of several hours in sleep and wake times can trigger both insomnia and daytime sleepiness. For one to three nights, while the body adjusts to time zone changes, taking a sleeping pill may improve sleep and minimize daytime fatigue.

Shift work schedule changes that affect sleep time: To prevent chronic “occupational jet lag,” workers sometimes find sleeping pills make it easier to fall asleep and stay asleep for

one to three nights a shift change.

Acute stress: Sleeping pills may prevent persistent sleep problems by helping people prone to insomnia through stressful times, such as a death in the family or the start of a new job.

Predictable stresses: People who always toss and turn the night before a monthly sales meeting or before giving a speech may rest better if they take a sleeping pill at such times.

Chronic insomnia: Having sleeping pills on hand can help ease poor sleepers through periodic flare-ups and can alleviate the anxiety that accompanies sleeplessness.

Certain medical disorders: Sleeping pills can improve sleep in people with periodic limb movements.

Short-acting sleeping pills are designed to last long enough to benefit sleep but leave the body quickly to minimize sleepiness the next day. Short-acting drugs include triazolam (Halcion), temazepam (Restoril), and zolpidem tartrate (Ambien); the long-acting flurazepam (Dalmane) is more likely to have a daytime carry-over, and is more appropriately used when illness or anxiety make daytime sedation desirable. Current recommendations call for taking a sleeping pill for a night or two and then skipping a night or two if sleep has improved. Sleeping pills usually aren't prescribed for periods longer than three weeks; every-night use is seldom advised. Sleeping pills should never be used in combination with alcohol. Sleeping pills that can be bought without a prescription (often called over-the-counter, or OTC, drugs), get their drowsiness-

inducing effect from antihistamines. Like prescription sleep aids, OTC drugs may also cause sleepiness the next day and should be used with caution.

Good sleep habits

These guidelines can be helpful in alleviating all types of sleep disorders, and will help most people sleep well:

- ◆ Get up about the same time every day
- ◆ Go to bed only when sleepy.
- ◆ Establish relaxing pre-sleep rituals—such as a warm bath, light bedtime snack, or 10 minutes of reading
- ◆ Exercise regularly. Confine vigorous exercise to early hours, at least six hours before bedtime, and do mild exercise—such as simple stretching or walking—at least four hours prior to bedtime.
- ◆ Keep a regular schedule. Regular times for meals, medications, chores, and other activities help keep the inner clock running smoothly.
- ◆ Avoid ingestion of caffeine within six hours of bedtime. Don't drink alcohol, especially when sleepy. Even a small dose of alcohol can have a potent effect when combined with tiredness.



one to three nights a shift change.

Acute stress: Sleeping pills may prevent persistent sleep problems by helping people prone to insomnia through stressful times, such as a death in the family or the start of a new job.

Predictable stresses: People who always toss and turn the night before a monthly sales meeting or before giving a speech may rest better if they take a sleeping pill at such times.

Chronic insomnia: Having sleeping pills on hand can help ease poor sleepers through periodic flare-ups and can alleviate the anxiety that accompanies sleeplessness.

Certain medical disorders: Sleeping pills can improve sleep in people with periodic limb movements.

Short-acting sleeping pills are designed to last long enough to benefit sleep but leave the body quickly to minimize sleepiness the next day. Short-acting drugs include triazolam (Halcion), temazepam (Restoril), and zolpidem tartrate (Ambien); the long-acting flurazepam (Dalmane) is more likely to have a daytime carry-over, and is more appropriately used when illness or anxiety make daytime sedation desirable. Current recommendations call for taking a sleeping pill for a night or two and then skipping a night or two if sleep has improved. Sleeping pills usually aren't prescribed for periods longer than three weeks; every-night use is seldom advised. Sleeping pills should never be used in combination with alcohol. Sleeping pills that can be bought without a prescription (often called over-the-counter, or OTC, drugs), get their drowsiness-

inducing effect from antihistamines. Like prescription sleep aids, OTC drugs may also cause sleepiness the next day and should be used with caution.

Good sleep habits

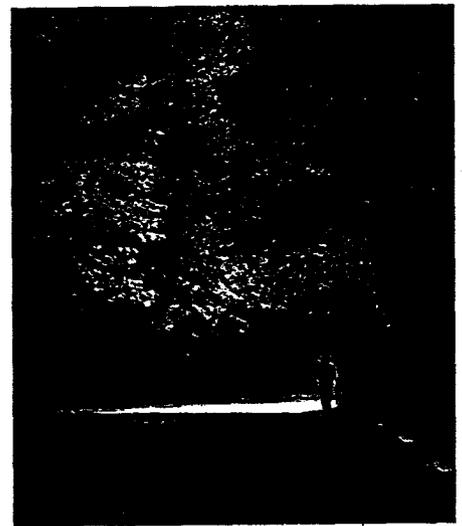
These guidelines can be helpful in alleviating all types of sleep disorders, and will help most people sleep well:

- ◆ Get up about the same time every day
- ◆ Go to bed only when sleepy.
- ◆ Establish relaxing pre-sleep rituals—such as a warm bath, light bedtime snack, or 10 minutes of reading
- ◆ Exercise regularly. Confine vigorous exercise to early hours, at least six hours before bedtime, and do mild exercise—such as simple stretching or walking—at least four hours prior to bedtime.
- ◆ Keep a regular schedule. Regular times for meals, medications, chores, and other activities help keep the inner clock running smoothly.
- ◆ Avoid ingestion of caffeine within six hours of bedtime. Don't drink alcohol, especially when sleepy. Even a small dose of alcohol can have a potent effect when combined with tiredness.



Sleep and Depression

**Understanding the
relationship between
mood and sleep**



A wellness booklet from



American Sleep Disorders Association

Dear Reader:

Sleep is not merely "time out" from daily life. It is an active state essential for mental and physical restoration. More than 100 million Americans of all ages, however, regularly fail to get a good night's sleep.

Some 84 disorders of sleeping and waking result in diminished quality of life and personal health, and endanger public safety through their contribution to traffic and industrial accidents. These disorders include those leading to problems falling asleep and staying asleep, difficulties staying awake or adhering to a consistent sleep/wake cycle, sleepwalking, bedwetting, nightmares, and other problems that interfere with sleep. Some sleep disorders are potentially fatal.

Sleep disorders are diagnosed and treated by a wide variety of healthcare providers, including general practitioners and specialists in neurology, pulmonary medicine, psychiatry, psychology, pediatrics and other fields. The American Sleep Disorders Association (ASDA) was founded in 1987 to increase awareness of sleep disorders among the public and professional communities. The ASDA is the field's major national organization. We represent several thousand clinicians and researchers in sleep disorders medicine.

For more information about sleep disorders, contact your healthcare provider. For a list of accredited member sleep disorders centers near you, write to us.

Sincerely,

**American Sleep Disorders Association
6301 Bandel Road, Suite 101
Rochester, MN 55901
www.asda.org**

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For most people, sleep and mood are closely linked. If you suffer from a sleep disorder, this connection between how you feel and how well you sleep can be especially important. In some sleep disorders patients, the problem can be seen as poor sleep that produces not only fatigue and/or sleepiness during the day, but depressed feelings as well. In others, the opposite occurs—the problem can be seen as depression that seems to cause problems with sleep, such as too much or too little. In fact, both perspectives are likely to be accurate: your sleep probably affects your mood, and your mood probably affects your sleep.

Sleep and Mood: A Delicate Balance

It may be important to determine whether one or the other (sleep or mood) is contributing

more significantly to your health problems. The two examples that follow illustrate this delicate balance.

Example 1: In severe cases of obstructive sleep apnea—a common sleep breathing disturbance related to heavy snoring—an individual wakes up repeatedly throughout the night. Because of these frequent awakenings (caused by difficulties in breathing), the sufferer never really gets a full night’s rest. Some people with sleep apnea wake up hundreds of times without realizing it, and when morning comes they feel they’ve hardly slept at all. Sleep apnea affects different people in different ways, but most complain of feeling tired or sleepy—or both—throughout the day. This constant fatigue wears down energy reserves and can eventually lead to feelings of depression.

In this example, focusing treatment primarily on the depression probably wouldn’t serve the patient’s best interests. A more direct approach would be to treat the sleep apnea (possibly with a special pressure breathing mask, an oral airway device, or weight reduction). When sleep apnea is eliminated and the sufferer begins to sleep better, energy reserves will be replenished and feelings of depression may subside. The root cause of the problem in this case is a sleep disorder which in turn led to depression.

Example 2: Another common sleep problem is insomnia, characterized by trouble falling asleep, staying asleep, or both. When an insomnia patient complains of early morning awakenings, it is possible that the real culprit is depres-

sion. For reasons not yet understood, depression causes some people to wake up too early and be unable to go back to sleep.

The focus of treatment in this example should be the mood problem (depression). When treatment for depression is successful, the sleep problem may be eliminated.

Other Relationships

These examples illustrate the relationship between depression and two very common sleep disorders—obstructive sleep apnea and insomnia—and are offered in detail because such cases are often straightforward and easily treatable. Other disorders, such as restless leg syndrome (RLS) and periodic limb movement disorder (PLMD), which produce restless sensations in the legs (while awake) or leg jerks (while asleep), can disrupt sleep to the point of producing daytime fatigue and/or sleepiness. The sufferer may feel unrested in the morning and tired throughout the day. Over time, depletion of energy reserves can contribute to depression.

This clarity, however, isn’t always seen. In some cases it may be useful to treat the sleep and mood problems simultaneously, because

both may be contributing to a state of poor health. In many people, depression rears its head very slowly. Insomnia may be one of the initial problems, while it can take months for feelings of depression to be noticed. It is sometimes most helpful to the patient to treat the sleep and depression problems together.

Treatment for both problems can include cognitive behavioral strategies that teach how to cope with difficulties in falling asleep or staying asleep, and how to manage feelings of depression. Medication may also be helpful to those suffering from depression, and the medicine may produce the positive side-effect of promoting sleep.

What About Consultation With a Specialist?

In more complex cases, it can be helpful to seek professional advice beyond that provided by a primary care doctor. Consultation with a sleep disorders specialist and/or a mental health specialist may be efficient in getting to the heart of the problem. Spending a



night in a sleep laboratory can provide useful information that will clarify matters. Some people with depression show abnormal sleep patterns for both deep sleep and dream sleep. These indicators can aid in diagnosis, and can suggest approaches to treatment. When both depression and insomnia are present, a sleep study may help paint a clearer picture of the problems for both doctor and patient.

Use your bed and bedroom primarily for sleeping

In most cases, though, a thorough history provides the most essential information. Most patients can complete a short (two weeks) sleep diary to document habits. Identifying the pattern of the sleep problem may help in the diagnosis of a specific type of depression. When a relatively young person (under age 30 to 40) complains about difficulty falling asleep, for example, this may fit with a diagnosis of depression. In an older person (over age 40), who falls asleep easily but complains of problems maintaining sleep and of early morning awakenings, a diagnosis of depression is more likely for this age group.

Good Sleep Hygiene

Regardless of the relationship between sleep and depression, and regardless of the treatment approach, sleep can often be improved by following the practices of sleep hygiene. Sleep hygiene is a recipe of simple habits and behaviors that help keep you “on schedule” to sleep better.

Choosing and maintaining regular bed and wake-up times seven days a week is one example of sound sleep hygiene.

Another helpful technique is to use your bed and bedroom primarily for sleeping. Spending

too much time in bed lying awake and trying to sleep can be counterproductive. Try leaving the bed and bedroom until you feel sleepy again, then return and let yourself fall asleep. This may be more easily said than done, especially for someone whose energy levels are sapped by depressed feelings, but it is a well-proven technique to help with relearning healthy sleep habits.

Insomnia

Sleep and depression may be intertwined and appear to affect one another in a variety of ways. Some situations are straightforward and can be easily sorted out by a primary care doctor. A sleep disorders specialist or a mental health professional may be more effective in sorting out complex cases.



It may take some time to identify the true relationship between a sleep problem and feelings of depression. Recognizing that a relationship exists between the two may go a long way toward helping to resolve disturbances of both sleep and mood.

Good Sleep Habits

These guidelines can be used for all types of sleep disorders. They will help most people, including those with depression, sleep better:

- ◆ Get up about the same time every day.
- ◆ Go to bed only when sleepy.
- ◆ Establish relaxing presleep rituals, such as a warm bath, light bedtime snack, or 10 minutes of reading.
- ◆ Exercise regularly. Consult a healthcare provider before beginning an exercise program. Vigorous exercise should be confined to the early part of the day (at least six hours before bedtime), and mild exercise—such as simple stretching or walking—should occur at least four hours before bedtime.
- ◆ Maintain a regular schedule. Our inner clocks run most efficiently when eating meals, taking medications, performing chores and other activities are done at regular times.
- ◆ Avoid caffeine within six hours of bedtime. Even a small dose of alcohol can have a potent effect when you are tired. Avoid smoking close to bedtime.



◆ If you nap, try to do so at the same time every day. Midafternoon is best for most people.

◆ If sleeping pills are prescribed, they should be used conservatively. Most doctors avoid prescribing sleeping pills for periods longer than 3 weeks. Never combine sleeping pills and alcohol.

Bodyrhythms: Chronobiology and Peak Performance, by Lynne Lamberg (William Morrow and Company, Inc., 1994)

No More Sleepless Nights, by Peter Hauri, PhD, and Shirley Linde, PhD (John Wiley and Sons, Inc. 1990)

Encyclopedia of Sleep and Dreaming, edited by Mary A. Caskadon, PhD (New York Macmillan, 1992)

[Wellness books available through American Sleep Disorder Research](http://www.wellnessbooks.com/health/american_sleep_disorder_research/)

Circadian Rhythms
Coping with Shift Work
Insomnia
'My Child Can't Sleep'
Narcolepsy
Overnight Sleep Studies
Parasomnias
Positive Airway Pressure Therapy for Sleep Apnea
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