

**Healthcare Professionals
Making a Difference In
Tobacco Use Cessation
Dr. Linda Sarna**

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Disclosure Statement

Dr. Sarna has received funding from the CDC for research. She has also received compensation for consulting services from: The Joint Commission, the Global Tobacco Dependence Treatment Partnership, International Non-Governmental Coalition Against Tobacco, and the California Department of Health.

Objectives

- Identify the health benefits of cessation and the role that healthcare providers play in communicating them to their patients
- Describe key aspects of effective tobacco dependence according to the *Treating Tobacco Use and Dependence Clinical Practice Guideline: 2008 Update* and how this impacts the role of healthcare providers.
- Discuss the NYS Smokers' Quitline services, including the provider referral program and other low-cost strategies to help smokers quit

Power of Intervention

- One-third to one-half of the 43.5 million smokers will die from smoking: 13 to 22 million will die from smoking.
- If the 2.5% cessation rate were increased to 10%, 4.4 million additional lives would be saved.
- If the cessation rate rose to 15%, 6.5 million additional lives would be saved
- Smoking cessation is one of the most cost-effective strategies for saving lives

CHANGING “GOOD” PRACTICE

Tobacco dependence treatment is part of quality care for all healthcare providers



Changing standards of practice

➤ Joint Commission

- Indicator for Quality of care

- delivery of smoking cessation treatment for patients with diagnoses of acute myocardial infarction, heart failure and pneumonia.

➤ Changes in accreditation requirements: focus on the healthcare providers' role and changes in practice

SMOKING CESSATION: REDUCED RISK of DEATH

- Prospective study of 34,439 male British doctors
- Mortality was monitored for 50 years (1951–2001)



On average, cigarette smokers die approximately 10 years younger than do nonsmokers.

Among those who continue smoking, at least half will die due to a tobacco-related disease.

QUITTING: HEALTH BENEFITS

Time Since Quit Date

**Circulation improves,
walking becomes easier**
**Lung function increases up
to 30%**

**2 weeks to
3 months**

Lung cilia regain normal function
**Ability to clear lungs of mucus
increases**

**1 to 9
months**

**Coughing, fatigue, shortness of
breath decrease**

**Excess risk of CHD
decreases to half that of a
continuing smoker**

**1
year**

**Risk of stroke is reduced to that of
people who have never smoked**

**Lung cancer death rate drops
to half that of a continuing
smoker**

**5
years**

**Risk of cancer of mouth,
throat, esophagus, bladder,
kidney, pancreas decrease**

**10
years**

**after
15 years**

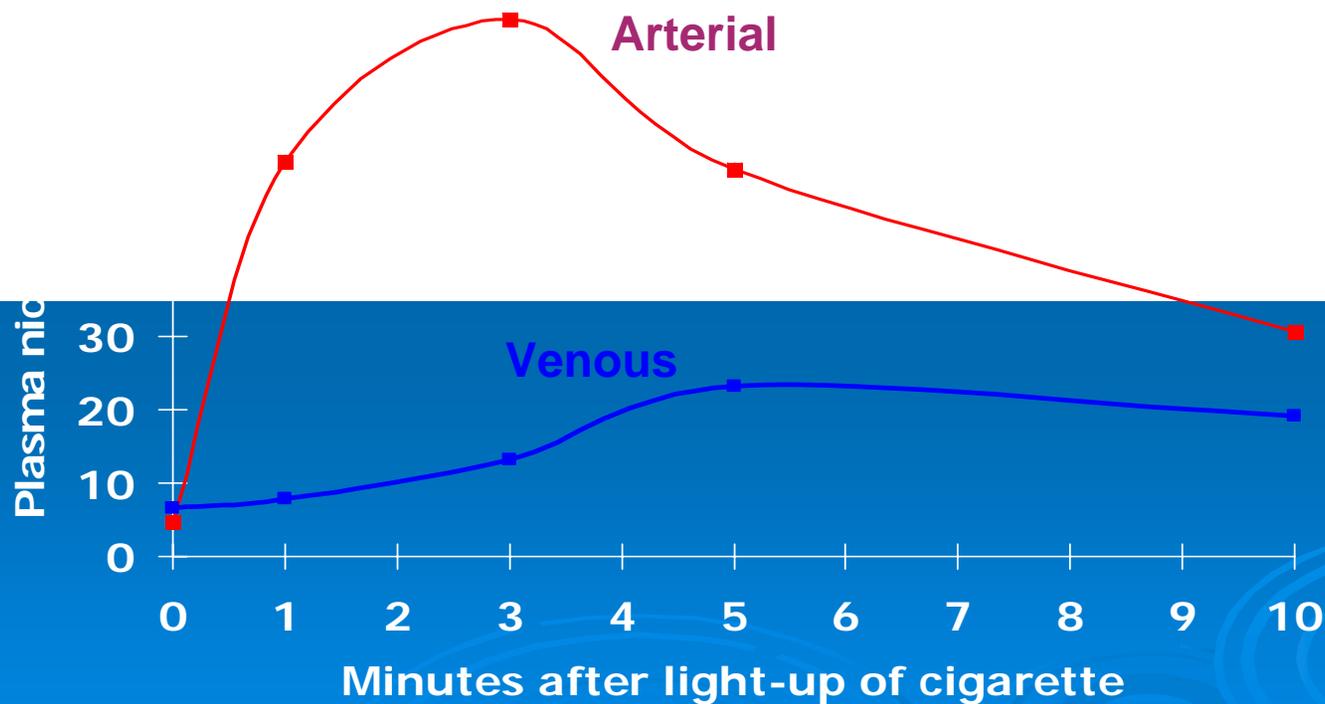
**Risk of CHD is similar to that of
people who have never smoked**

Reduction in amount of smoking

- **TOTAL CESSATION NECESSARY FOR HEALTH BENEFITS**
- **NO SUCH THING AS A SAFE CIGARETTE OR SAFE AMOUNT OF SMOKING**

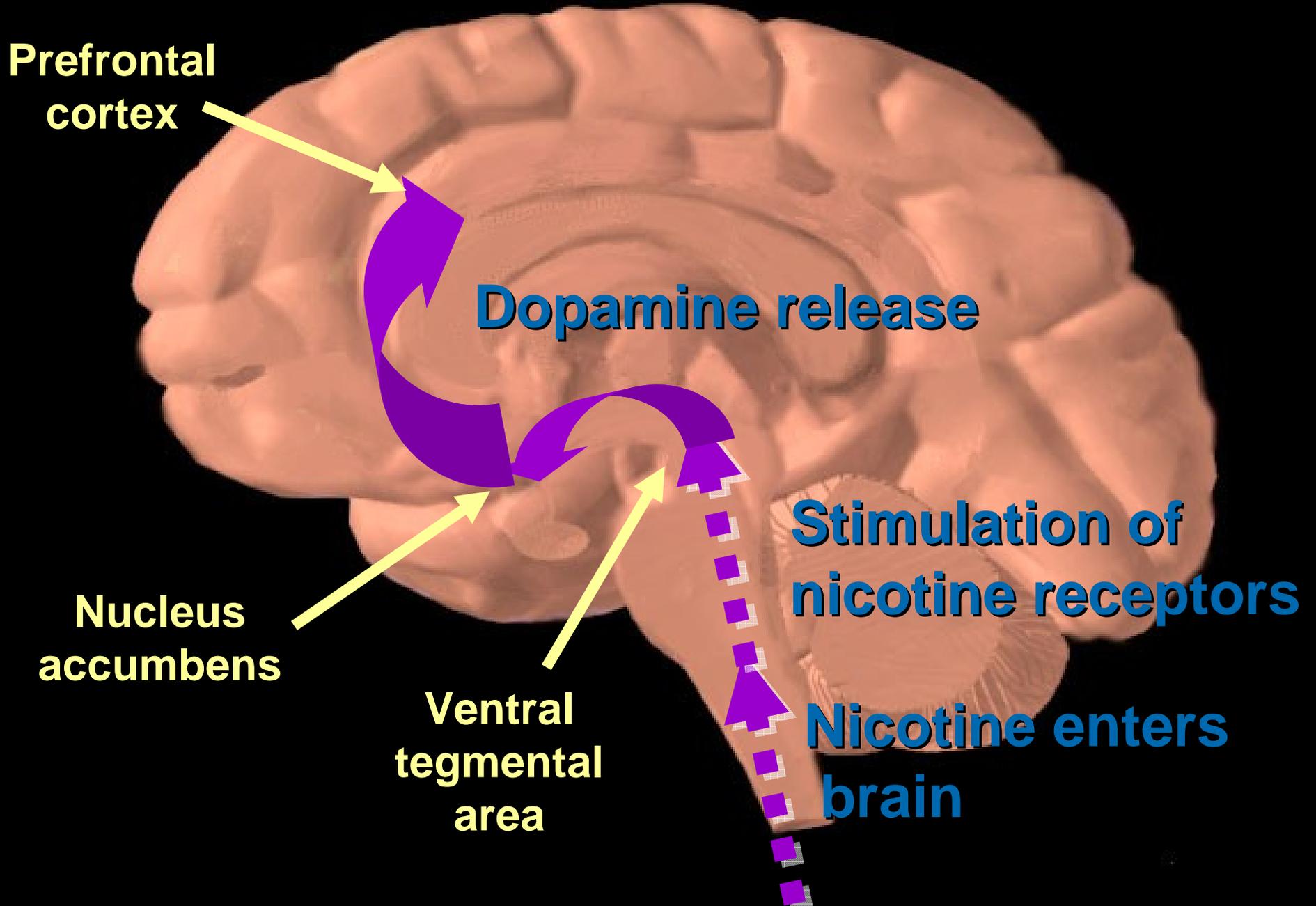
“Cigarettes are nicotine delivery devices” (Fiore, 2000)

Nicotine reaches the brain within 11 seconds

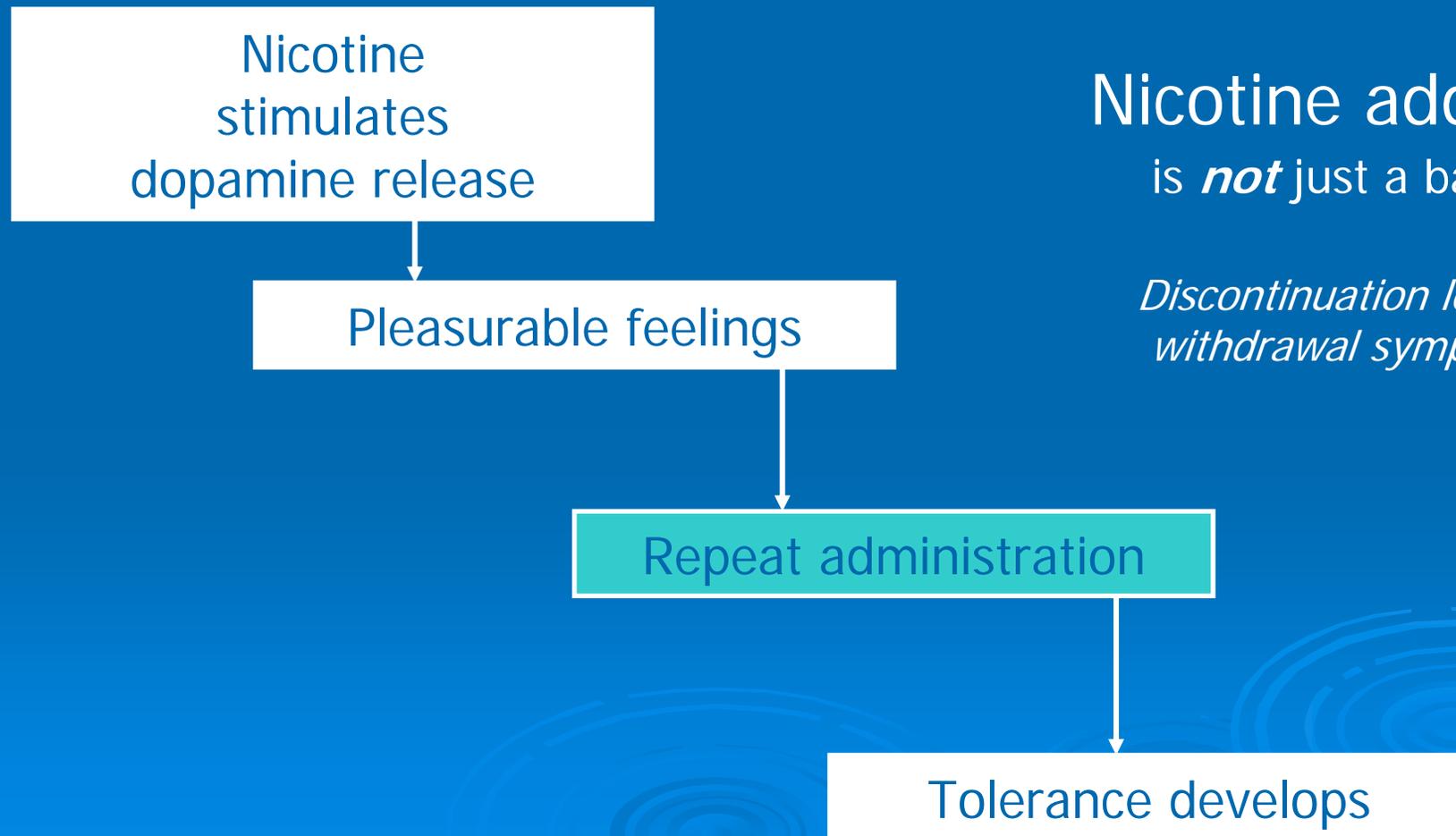


Henningfield et al., *Drug Alcohol Depend* 1993;33:23-29.

DOPAMINE REWARD PATHWAY



ADDICTION to NICOTINE: Chronic relapsing condition



Nicotine addiction
is *not* just a bad habit.

*Discontinuation leads to
withdrawal symptoms.*

TOBACCO DEPENDENCE: A 2-PART PROBLEM

Tobacco Dependence

Physiological



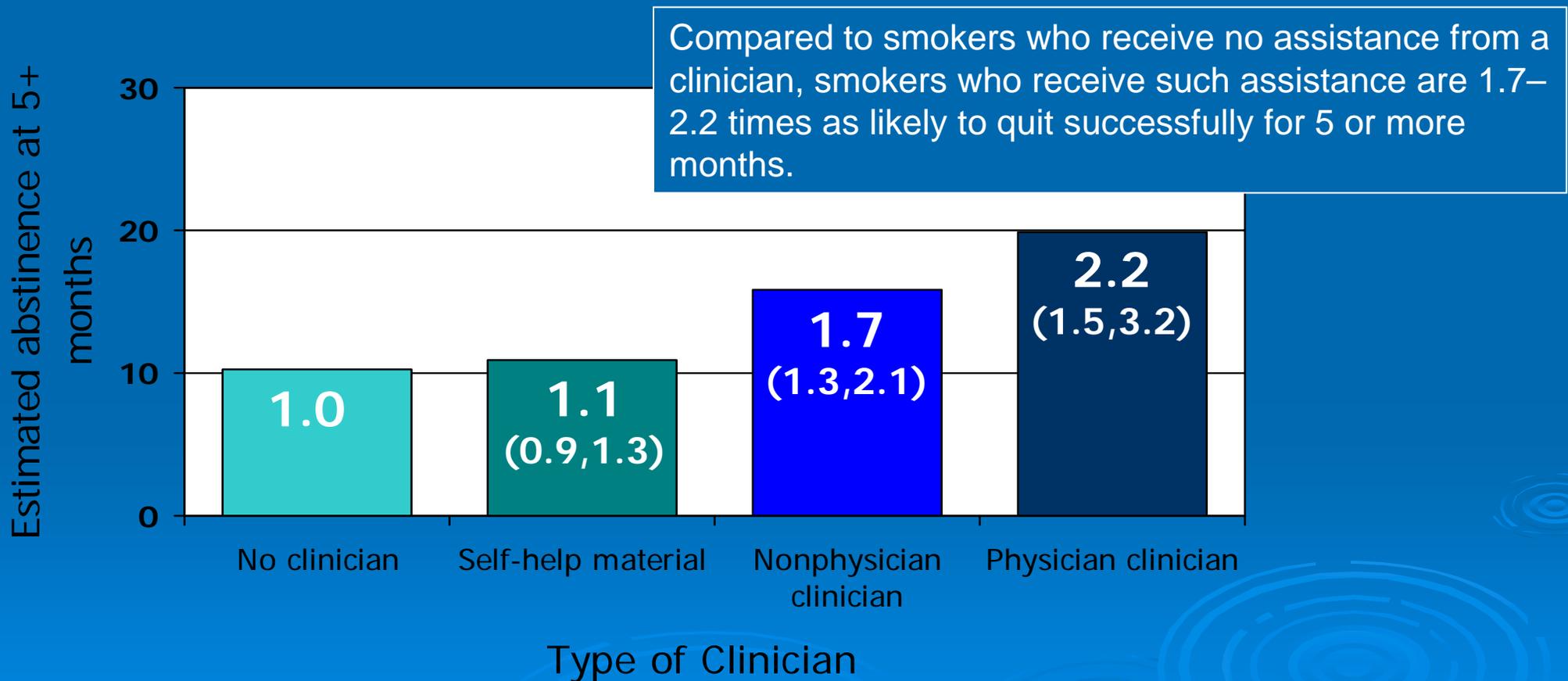
Behavioral

Treatment should address the physiological **and** the behavioral aspects of dependence.

The FACTS

- **Among 19 million who tried to quit in 2005, only 4-6% were smoke-free one year later (CDC, 2006)**
- **One half of all smokers have quit**
- **70% of smokers see a health care provider every year**
- **70% of smokers want to quit**

CLINICIANS CAN MAKE a DIFFERENCE



Fiore et al. (2000). *Treating Tobacco Use and Dependence. Clinical Practice Guideline*. Rockville, MD: USDHHS, PHS.

PHS Tobacco Dependence Treatment Clinical Practice Guideline 2008 Update

- Tobacco dependence is a chronic condition that requires repeated intervention
- Every patient who uses tobacco should be offered treatment
- Tobacco interventions are cost effective

Recommendations for Tobacco Dependence Treatment PHS 2008 Update

- All patients should be asked if they use tobacco and have their tobacco use documented on a regular bases (e.g. chart stickers, computer prompts)

Recommendations for Tobacco Dependence Treatment PHS 2008 Update

- Counseling and behavioral therapies
 - Practical counseling (problem-solving skills/skills training) and providing support and encouragement as part of treatment are effective
 - Tailored print and Web-based materials appear to be effective.

Recommendations for Tobacco Dependence Treatment PHS 2008 Update

- Smokers *unwilling* to make a quit attempt
 - Motivational intervention techniques are successful
 - Stage of change theory should not be used as a rationale for not intervening

Motivational Interviewing

- Techniques to support person's self motivation to change
- Exploring feelings, beliefs, ideas & values about a behavior in order to uncover ambivalence
 - Once ambivalence is uncovered, clinician supports and strengthens "change talk"

MI Techniques

➤ Principles of MI

- Express empathy
- Develop discrepancy
- Roll with resistance
- Support self-efficacy

➤ Listening and reflection

- Personal reasons, ideas for change
- Empathy: concern not control
- Reflection, commitment about change

Communicating Benefits to Patients

The “5 R’s” to Motivate Patients

Relevance	Encourage patient to indicate why smoking is personally relevant
Risks	Ask patient to identify potential negative consequences of tobacco use
Rewards	Ask patient to identify potential benefits of stopping tobacco use
Roadblocks	Ask patient to identify barriers or impediments to quitting
Repetition	Motivational intervention should be repeated every time an unmotivated patient visits the clinic setting

Recommendations for Tobacco Dependence Treatment

PHS 2008 Update

➤ Medications

- Encourage all patients attempting to quit to use effective medications for tobacco use
 - Contraindications/effectiveness not established: pregnant women, light smokers, adolescents, smokeless tobacco users

➤ Combination Medications

- Consider use of combination medications
 - Patch plus other NRT (gum, spray)
 - Patch + inhaler
 - Patch + bupropion SR

Recommendations for Tobacco Dependence Treatment PHS 2008 Update

- Combining counseling & medications
 - More effective than either alone
 - Both should be offered to patients trying to quit
 - Multiple counseling sessions are most effective

Recommendations for Tobacco Dependence Treatment PHS 2008 Update

- Treatments are effective with a variety of populations and are recommended for all tobacco users (except when contraindicated or not effective)
 - Pregnant women
 - Teens
 - Light smokers
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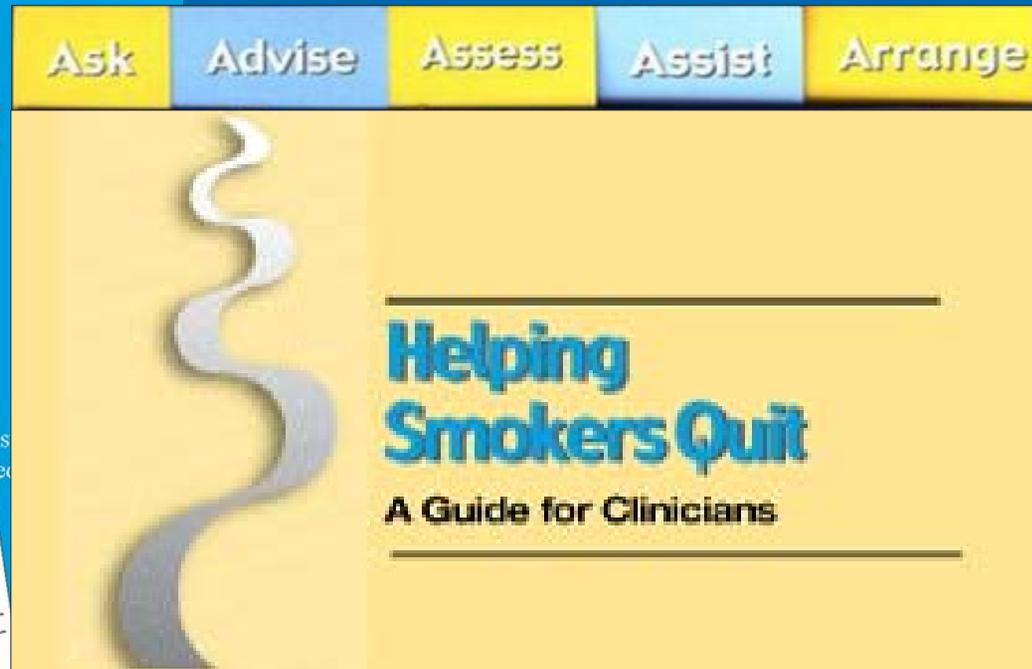
Helping Smokers Quit: A Guide for Clinicians

Ask

**Ask about
tobacco use at
every visit.**

Implement a system in your clinic that ensures tobacco-use status is obtained and recorded at every patient visit.

VITAL SIGNS	
Blood Pressure: _____	Weight: _____
Pulse: _____	_____
Temperature: _____	_____
Respiratory Rate: _____	_____
Tobacco Use: _____	Current Former (circle one) Never



The 5 A's

- Ask
- Advice
- Assess
- Assist
- Arrange

STEP 1: ASK

- **ASK** about tobacco use
 - “Do you, or does anyone in your household, ever smoke or use any type of tobacco?”
 - “We like to ask our patients about tobacco use, because it has the potential to interact with many medications.”
 - “We like to ask our patients about tobacco use, because it contributes to many medical conditions.”
- Record smoking status!

STEP 2: ADVISE: Clear, strong, & personalized: Healthcare providers advice to quit is a strong motivator

- **ADVISE** tobacco users to quit
 - “Quitting is important, and I can refer you to people who can help you.”
 - “There are several medications that can help you to quit. I’d be happy to ask the [doctor, nurse, pharmacist, etc.] to talk with you about these options.”
 - “People who receive assistance with quitting are more likely to be able to quit successfully. If you are interested, we can talk about different options.”

STEP 3: ASSESS

- **ASSESS** readiness to quit using MI techniques
 - Ask every tobacco user if s/he is willing to quit at this time.
 - If willing to quit, provide resources and assistance
 - See STEP 4, *ASSIST*
 - If NOT willing to quit at this time, provide resources and enhance motivation. Ask three questions:
 - “How will it benefit you to quit later, as opposed to now?”
 - “What is the worst thing that could happen if you were to quit tomorrow?”

STEP 4: ASSIST

- ASSIST tobacco users with a quit plan
 - Forced Quit attempt due to hospitalization
 - Treatment for nicotine withdrawal
 - Focus on staying Quit after discharge

Smoking cessation interventions for hospitalized smokers (Rigotti et al, 2008)

- Hospitalization is a teachable moment
- Meta analysis of studies
- Counseling that begins during hospitalization and continues for > 1 month after discharge significantly increased cessation rates at 6 and 12 months
 - (65% more patients quit than those who received counseling only during hospitalization)
- Adding NRT may further increase quit rates.

STEP 4: ASSIST

- **ASSIST** tobacco users with a quit plan
 - Set a quit date, ideally within 2 weeks.
 - Get support from family, friends, and coworkers.
 - Review past quit attempts—what helped, what led to relapse.
 - Anticipate challenges, particularly during the critical first few weeks, including nicotine withdrawal.
 - Identify reasons for quitting and benefits of quitting.

STEP 4: ASSIST (cont'd)

➤ ASSIST tobacco users with a quit plan

- Give advice on successful quitting:
 - Complete abstinence is essential—*not even a single puff*.
 - Drinking alcohol is strongly associated with relapse.
 - Having other smokers in the household hinders successful quitting.
- Encourage use of pharmacotherapy when not contraindicated
- Provide resources:
 - Toll-free telephone quitline, **1-800-QUIT NOW**
 - Agency for Healthcare Research and Quality: Pocket Guide
http://www.ahrq.gov/news/pubcat/c_clin.htm
 - Tobacco Free Nurses: www.tobaccofreenurses.org

Effectiveness of the 5-As in tobacco cessation treatment in 9 HMOs

- 77% offered advice to quit
- 33% offered pharmacotherapy
 - 1/3 of these patients used meds
 - Those offered meds more likely to quit (OR = 1.73)
 - Compared to those who did not use meds, those who used these meds were more likely to quit (OR = 2.23).
- 41 % were offered counseling
 - Only 16% used counseling/attended classes
 - Compared to those who did not use counseling, those who used counseling were more likely to quit (OR = 1.82).

Pharmacotherapy:

**Chief obstacle to quitting is the
addictive nature of nicotine:
physical dependence, tolerance,
withdrawal symptoms**

Combine counseling & meds

- Combination of counseling and medication is more efficacious than either medication or counseling alone

FDA-APPROVED MEDICATIONS for CESSATION

Nicotine polacrilex gum

- Nicorette (OTC)
- Generic nicotine gum (OTC)

Nicotine lozenge

- Commit (OTC)
- Generic nicotine lozenge (OTC)

Nicotine transdermal patch

- Nicoderm CQ (OTC)
- Generic nicotine patches (OTC, Rx)

Nicotine nasal spray

- Nicotrol NS (Rx)

Nicotine inhaler

- Nicotrol (Rx)

Bupropion SR

- Zyban (Rx)
- Generic bupropion SR (Rx)

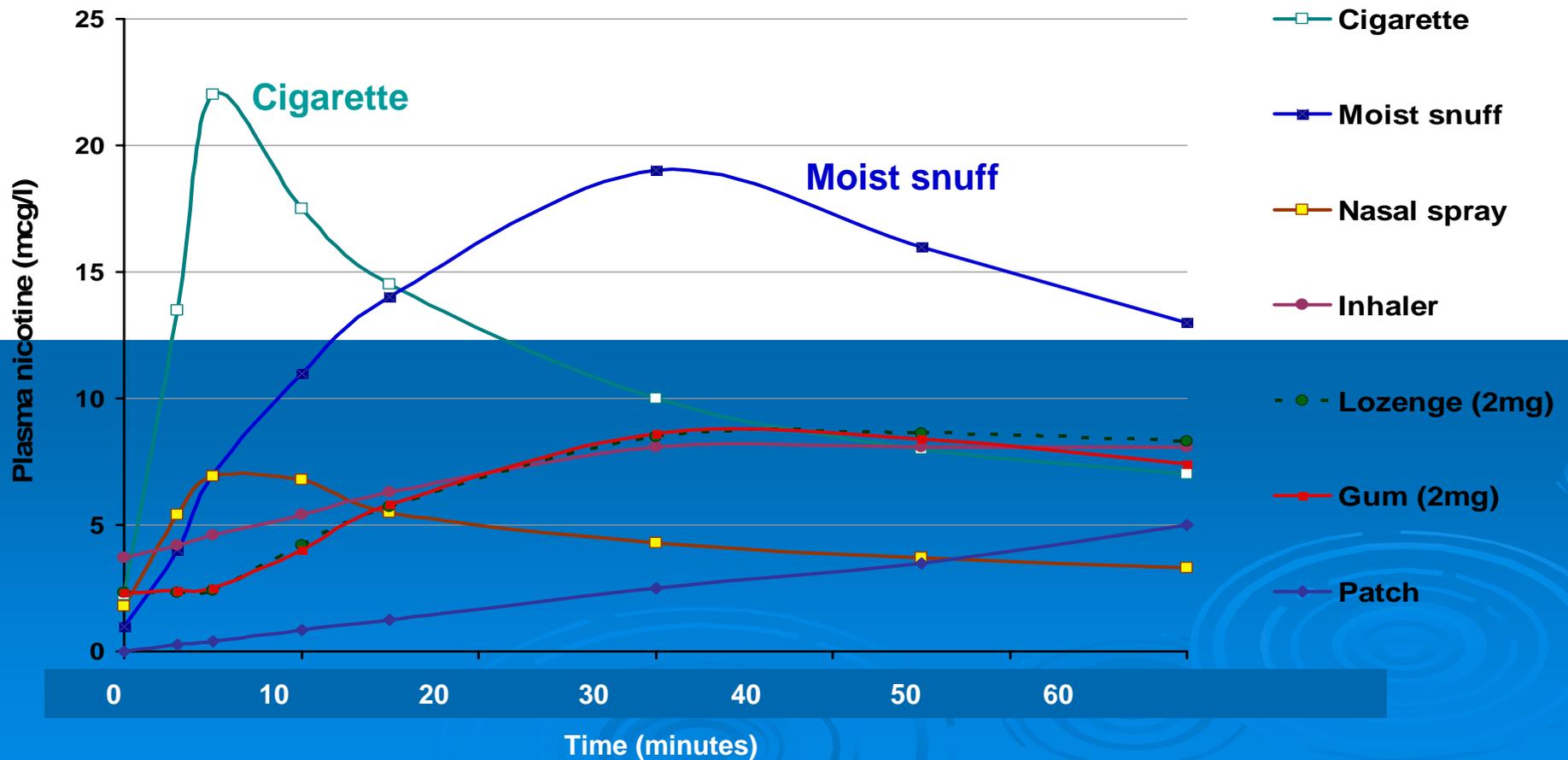
Varenicline

- Chantix (Rx)

These are the only medications that are
FDA-approved for smoking cessation.

Nicotine Delivery Systems

Plasma nicotine concentrations



Recommending Pharmacotherapy

- Medical history
 - Smoking patterns
 - Patient preference, experience
 - Patient characteristics
 - Hx depression
 - Concerns re: wt gain
 - Cost, insurance coverage
- 

NICOTINE GUM: Nicorette; generic (GlaxoSmithKline; Watson Labs)

- Approved for Rx use in 1984; OTC in 1996
- Resin complex
 - Nicotine
 - Polacrillin
- Sugar-free chewing gum base
- Buffering agents to enhance buccal absorption of nicotine
- Available: 2 mg, 4 mg; regular, mint, orange



TRANSDERMAL NICOTINE PATCH

Nicoderm CQ (GlaxoSmithKline); generic

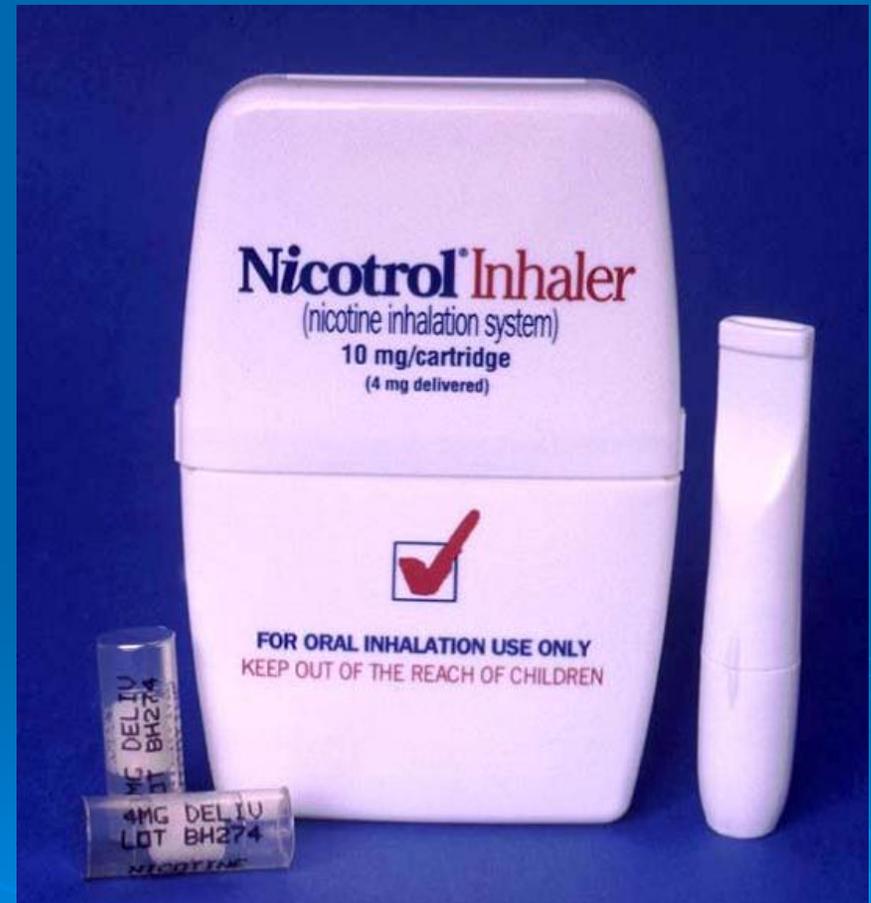
- Nicotine is well absorbed across the skin
- Plasma nicotine levels are lower and fluctuate less than with smoking
- 3-step therapy that allows for gradual reduction of nicotine dose



NICOTINE INHALER

Nicotrol Inhaler (*Pharmacia*) (3-6 months)

- Approved for Rx use in 1997
- Nicotine inhalation system consists of
 - Mouthpiece
 - Cartridge with porous plug containing 10 mg nicotine
- Delivers 4 mg nicotine vapor, which is absorbed across buccal mucosa
- May satisfy hand-to-mouth ritual of smoking



NICOTINE NASAL SPRAY

Nicotrol NS (*Pharmacia*)

- Approved for Rx use in 1996
- Aqueous solution of nicotine, 10 ml spray bottle
- Each metered dose actuation delivers
 - 50 μ L spray
 - 0.5 mg nicotine
- Rapidly absorbed across nasal mucosa



Nicotine Lozenge: Commit (GlaxoSmithKline)



- Approved for over the counter use in 2003
- 2 & 4 mg
- 9-20 per day
- Reduce over 12-week program
- Mouth tingles

Non-Nicotine Replacement Medications



BUPROPION SR (ZYBAN) (GlaxoSmithKline)

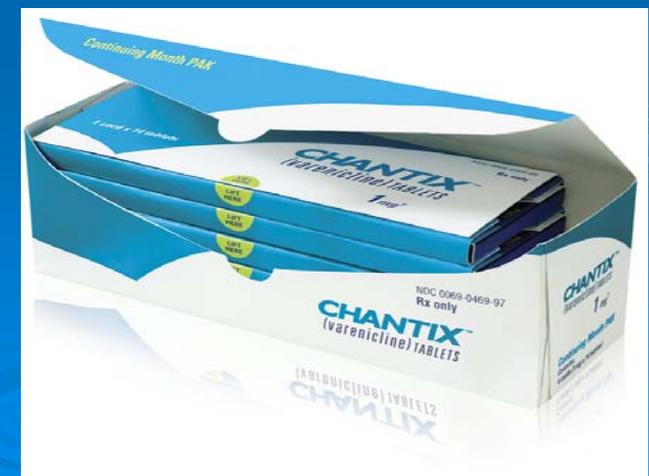
- Non-nicotine cessation aid
- Sustained release antidepressant
- Oral formulation



VARENICLINE

Chantix (Pfizer)

- Non-nicotine cessation aid
- Partial nicotinic receptor agonist
- Oral formulation



MECHANISM of ACTION

➤ Both

- Require a loading dose
- Start medications week before quit attempt

➤ Both

- ↓ symptoms of nicotine withdrawal
- Blocks dopaminergic stimulation responsible for reinforcement & reward associated with smoking

Extended Use of Cessation Pharmacotherapy

- Minority of smoker who successfully quit use *ad libitum* NRT agents long-term
- *NRT not FDA-approved for long-term maintenance*
- Use does not present known health risks
- *Some evidence that extended use of some medications results in greater long-term smoking abstinence*

Treatments that are not supported by the Guideline

- nicotine fading*
- hypnosis
- biofeedback
- Herbs
- acupuncture

CHANGING BEHAVIOR

- Many patients do not understand the need to change behavior
- Patients think they can just “make themselves quit”
- Few patients adequately PREPARE and PLAN for their quit attempt.
- Fewer than 5% of people who quit without assistance are successful in quitting for more than a year.

Behavioral counseling is a key component of treatment for tobacco use and dependence.

CHANGING BEHAVIOR (cont'd)

- Patients automatically smoke in the following situations:
 - When drinking coffee
 - While driving in the car
 - When bored
 - While stressed
 - While at a bar with friends
 - After meals
 - During breaks at work
 - While on the telephone
 - While with specific friends or family members who use tobacco
- Behavior change programs help patients learn to cope with these difficult situations without having a cigarette.

STEP 5: ARRANGE

➤ **ARRANGE** for follow up visits

- Provide information for follow up visits with his/her health care provider
- If a relapse occurs, encourage repeat quit attempt—tell patient that relapse is part of the quitting process.
 - Review circumstances that caused relapse.
 - Use relapse as part of the learning experience.
 - Reassess pharmacotherapy use and plans for termination.
- Refer to other resources

Relapse Prevention

- 35 million make a serious attempt each year,
 - > 90% relapse
 - Relapse decreased if given recommended interventions
 - Usually occurs soon after quitting
 - Normal part of quitting process
- 

REFER

WHEN LIMITED BY TIME or EXPERTISE

- **REFER** tobacco users to other resources

Some referral options:

- Hospital-based cessation service (if available)
- A local group program
- **Toll-free telephone quitline:**

1-866-NY-QUITS

(1-866-697-8487)

