

Tobacco Use and The Pediatrician

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Important Facts

- There is *no safe level* of exposure to secondhand smoke! 2006 Surgeon General's Report
- The primary source of SHS exposure of children is their parents. Schwab, 1992
- Children whose parent(s) smoke outside are *still* exposed to SHS.
- The only way to *eliminate* SHS exposure of children is to eliminate smoking by parents.

SHS Exposure Causes Premature Death and Disease

Including increased risk for

- SIDS**
- Respiratory infections**
- Otitis media**
- Asthma**
- Decreased lung growth**

As Well As...

- Growth abnormalities, including low birth weight and intrauterine growth retardation/small for gestational age
- Delivery complications, including premature rupture of membranes, placenta previa, and placental abruption
- Preterm delivery, stillbirth, and spontaneous abortion
- Admission to neonatal intensive care units
- Orofacial clefts (Recent studies are less supportive.)
- Nicotine withdrawal symptoms during the neonatal period
- Infant death from all causes and sudden infant death syndrome (SIDS)
- Infection, including neonatal infection
- Poor growth
- Respiratory effects, including reduced lung function in infants and children, lower respiratory tract illnesses (such as pneumonia, bronchiolitis, asthma) and otitis media
- Behavioral and neurocognitive effects, including abnormal neonatal neurobehavior, developmental delay, ADHD, conduct disorder, and psychiatric disorders speech-processing ability
- Febrile seizures
- Experimentation with tobacco and addiction to tobacco as an older child or adult
- Gastrointestinal disease, including colic, pyloric stenosis, diabetes
- Some cancers
- Early weaning from breastfeeding
- Development of allergies
- Hospitalization for any illness
- Office visits for any illness
- Allergic sensitization

And...

- Lower respiratory disease, including persistent decreased lung function, infections, asthma prevalence, frequency and severity of asthma exacerbations
- Upper respiratory infections, including otitis media, cough, allergic rhinitis, and nasal obstruction
- Tonsillectomy, adenoidectomy and placement of pressure-equalizing (PE) tubes
- Respiratory complications associated with anesthesia
- Invasive meningitis
- Infection with *M. tuberculosis* in children living in a household with a patient with tuberculosis
- Infection with *Helicobacter pylori*
- Hospitalization for any illness
- Hospitalization for respiratory disease, and serious infections
- Gastrointestinal disease, including colic and reflux
- Behavioral and neurocognitive effects
- Decreased initiation and duration of breastfeeding
- Dental disease
- School absences
- Molecular, genetic, and cellular changes
- Experimentation with tobacco and addiction to tobacco as an older child or adult
- Injury and death due to fires
- Altered lipid profiles and endothelium effects in adolescents and young adults
- Asthma
- Chronic dry cough and phlegm
- Lung cancer, leukemia, and lymphoma, as an adult

Secondhand Smoke Affects Families

- **Children whose parents smoke are more likely to smoke themselves**

Farkas, 2000

- **A pack-a-day habit costs \$1000 to \$1500 a year – a considerable expense!**

- **36% of US children are exposed**

Schuster, 2003

Can Pediatricians Help Eliminate SHS Exposure?

- **No. We're already too busy!**
- **No. Parents aren't our patients.**
- **No. We'll alienate parents and they'll go somewhere else.**
- **No. We won't be reimbursed for the time we spend.**
- **And besides, we don't know what to do!**

Yes, You Can!

- You can be effective in 3 minutes or less!
- Parents EXPECT you to discuss tobacco use.
- If you respect the parent during your discussion, you won't alienate them.
- You got me there. (Reimbursement.)
- We'll teach you how!

The Odds Are In Your Favor

- **You have frequent contact and significant influence on your patients and their families**
- **Most users want to quit - almost half attempt to quit each year!**
- **Much improved access to pharmacotherapies and classes**

Your Tools

- **The 5 As**
- **Motivational interviewing techniques**
- **Pharmacotherapy**
- **Community and public health resources**

The Theory Behind the Tools

- **The Addicted State**
- **Stages of Change**
- **Motivational Interviewing**
- **Pharmacotherapies**

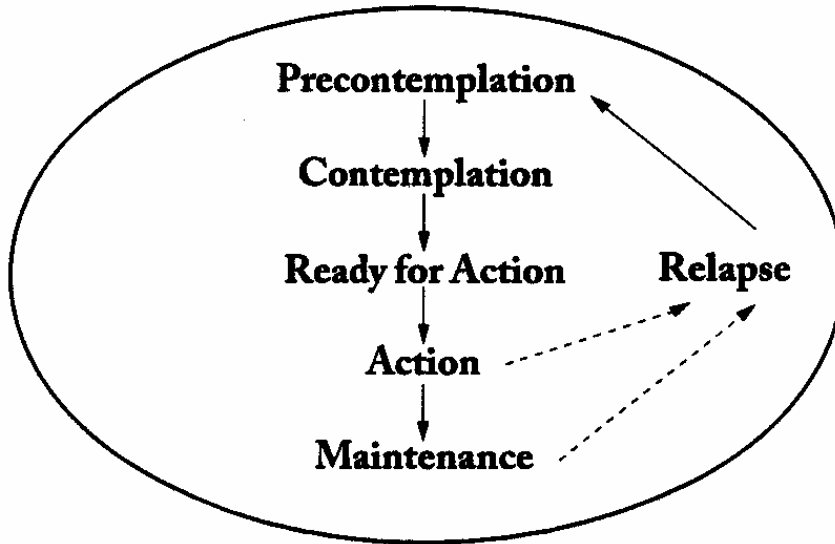
Addiction and Substance Abuse

- Addiction is the compulsive use of a substance despite negative consequences
- Abuse is the excessive use of a substance or use for purposes for which it was not medically intended
 - Unfortunately, tobacco is typically used as intended

Factors of Addiction: A Chronic Disease

- **Genetics**
- **Environment**
 - **Emotional, physical, psychiatric health**
 - **Family, friends, society**
- **Pharmacology**

Assessing Stage of Readiness



Stages of Change

Behavior change occurs in stages – not all at once.

Motivational Interviewing

- Patient-centered, directive method for enhancing motivation to change
 - By exploring and resolving **AMBIVALENCE**
 - “I want to quit smoking, but I like to smoke”

Pharmacotherapies

- Combining pharmacotherapy with counselling *DOUBLES* a patient's chance of successfully quitting smoking

Pharmacotherapy Types

- **Nicotine replacement therapy (NRT)**
(many brands, some generics)
 - Many OTC
 - Some states reimburse, even for OTC (prescription may be required)
- **Bupropion SR (Zyban, Wellbutrin)**
- **Varenicline (Chantix)**

NRT

- **Non-nicotine components of tobacco cause most of the adverse health effects**
 - **Tars, carbon monoxide, etc.**
- **The benefits of NRT outweigh the risks, even in smokers with cardiovascular disease (remember they already smoke!)**

Using NRT: Treatment Goals

- Overall reduction of nicotine withdrawal symptoms – not to replace tobacco!
- Help with momentary urges
- Modify habitual behavior
- Postponement of smoking
 - May be used to defer smoking when in environment in which smoking is not allowed

NRT Products Can Be Combined

- **Use the patch for “daily maintenance”**
- **Add gum or lozenge for intense urges**
 - **Read and follow the directions!!**
- **Warn about symptoms of nicotine overdose**
 - **Nausea, dyspepsia, “the jitters”**

NRT Dosing

- **Maintain a consistent level of nicotine during waking hours with “breakthrough” dosing initiated by the patient**
- **Most users UNDERDOSE – frequent cause of treatment failure**
- **See book for detailed discussion of dosing NRT**

Bupropion (Zyban, Wellbutrin)

- **Prescription only**
- **Atypical antidepressant**
- **Can be combined with NRT**
- **Dose**
 - **150/300 mg at least 7 days before quitting**
- **Side effects**
 - **Dry mouth, headache, sleep disturbance, dizziness**

Effects and Considerations

- Reduces craving
- Some users quit *before* their quit date
- Need to pre-load
- Contraindications
 - Bulimia, anorexia, current alcohol abuse, seizure disorder

Varenicline (Chantix)

- Prescription only
- Selective nicotinic receptor modulator
- Do NOT combine with NRT (nausea)
- Dose
 - Start 1 week before quit date
 - 0.5 mg QD for 3 days, then 0.5 mg BID for 4 days, then 1 mg BID for 12 weeks or longer
 - After a meal with 8 oz water

Effects and Considerations

- **Side Effects**
 - **Nausea, sleep problems**
 - **Nausea is frequent and severe enough that many quit using**
- **May be more effective than bupropion**

Questions?

