

Latest in Treatment Options for Vaping and Tobacco Use: Successful Methods for Teens and Adults

Wendy L. Wright,
DNP, ANP-BC, FNP-BC, FAANP, FAAN, FNAP
Adult/Family Nurse Practitioner
Owner – Wright & Associates Family Healthcare
@ Amherst
Owner – Partners in Healthcare Education

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Learning Objectives

- Evaluate statistics regarding cigarette, tobacco, and vaping.
- Identify strategies to assist the individual with quitting smoking, vaping, tobacco use.
- Examine benefits and risks of the various pharmacologic practices.

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Disclosures

- Speaker Bureau:
 - Sanofi-Pasteur, Merck, Pfizer, Seqirus, Moderna: Vaccines
 - AstraZeneca: Asthma and COPD
 - Exact Sciences: Colorectal Cancer
- Consultant:
 - Sanofi-Pasteur, Merck, Pfizer, Moderna, and Seqirus: Vaccines
 - AstraZeneca: Asthma and COPD
 - Exact Sciences: Colorectal Cancer

**All financial relationships have been mitigated*

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Smoking Remains the Leading Cause of Preventable Disease, Death and Disability in the United States

https://www.cdc.gov/tobacco/data_statistics/fact_sheets/adult_data/cig_smoking/index.htm accessed 02/29/2024

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CDC Statistics

- 2022
 - Approximately 19.8% of adults use some tobacco product: 1 in 5 US adults
 - Cigarette use is 11.6%; this is down from 14% in 2019
 - Healthy people 2020 goal is: 12%
 - E-cigs or vaping is responsible for the increase in tobacco use
 - 3.9% in 2019 and up to 6.0% in 2022

<https://www.cdc.gov/tobacco/media/pdfs/2024/09/cdc-osh-ncis-data-report-508.pdf> accessed 01-02-2025

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Statistics

- Cigarette smoking have dropped significantly since 1965
 - 480,000 deaths annually from tobacco use
 - 1 in 5 deaths
 - 16 million Americans are living with a smoking-related disease
 - Smoking-attributable healthcare spending exceeds \$170 billion per year

https://www.cdc.gov/tobacco/data_statistics/fact_sheets/adult_data/cig_smoking/index.htm accessed 02/29/2024

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2024: States - Highest to Lowest

- Utah – lowest rates
 - 9.9% of the population
- West Virginia – highest rates
 - 26% of the population
 - Kentucky: 24.6%
 - Texas: 16%

<https://worldpopulationreview.com/state-rankings/smoking-rates-by-state> accessed on 01-02-2025

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Tobacco and Teens

- Tobacco use is often started and established primarily during adolescence
 - Nearly 9 out of 10 cigarette smokers first tried smoking by age 18, and 99% first tried smoking by age 26
 - Each day in the United States, more than 3,200 youth aged 18 years or younger smoke their first cigarette, and an additional 2,100 youth and young adults become daily cigarette smokers

http://www.cdc.gov/tobacco/data_statistics/fact_sheets/youth_data/tobacco_use

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Good and Bad News

- Teen smoking rates have declined in the year 2000-present and now resemble those seen in the late 1980's and early 1990's however...
 - Rates are still very high
 - From the time the individual smokes his/her first cigarette until addiction: 2 – 3 years
 - Individuals who smoke cigarettes are 15 x more likely to use drugs and alcohol than those who do not smoke cigarettes

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Tobacco and Teen Enticement

- Flavorings in tobacco products can make them more appealing to youth.⁴
 - In 2014, 73% of high school students and 56% of middle school students who used tobacco products in the past 30 days reported using a flavored tobacco product during that time

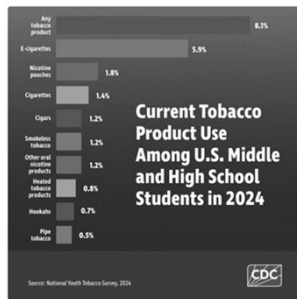
http://www.cdc.gov/tobacco/data_statistics/fact_sheets/youth_data/tobacco_use/
Accessed 05-10-2016

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2024: Tobacco and Teens

Estimates of current tobacco use among youth



<https://www.cdc.gov/tobacco/php/data-statistics/youth-data-tobacco/index.html>

Current tobacco use among U.S. middle and high school students in 2024.

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What About E-cigs/Vaping?

- E-cigarettes (also called electronic nicotine delivery systems [ENDS], vapes, vape pens, tanks, mods, and pod mods) are battery-powered devices
- They are designed to convert a liquid (often called e-liquid)—which contains a humectant (propylene glycol and vegetable glycerin) and also typically contains nicotine, flavorings, and other compounds—into aerosol for inhalation by the user.

<https://www.cdc.gov/mmwr/volumes/69/wr/mm6937e1.htm> accessed 09-13-2020

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Statistics

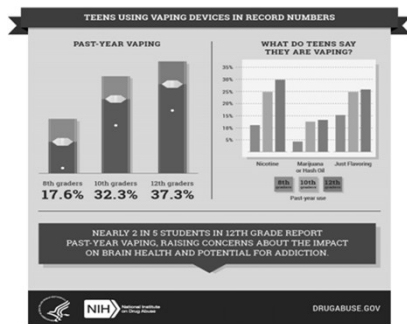
- In 2024, 7.8% (1 out of every 13) high school students reported that they had vaped in the last 30 days.
- In 2024, almost 3.5% of middle school students reported that they had vaped/used e-cigin the last 30 days.
- The United States' makes up 43.2% of the world's total vape users.

<https://www.cdc.gov/tobacco/php/data-statistics/youth-data-tobacco/index.html>

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DrugAbuse.gov



<https://www.cdc.gov/mmwr/volumes/69/sr/mm6937e1.htm> accessed 09-13-2020

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Medicaid

- Many states are feeling burden of smoking:
 - Smoking and tobacco-related illnesses count for approximately 10-15% of all Medicaid expenditures
 - Many Medicaid programs are exploring ways to curb smoking through counseling, medication and even financial incentives to quit smoking

Morris, CD, Miller, BF, Mahalik, JL. TBM 2011;1:31 -34.

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Nicotine

- Nicotine is one of the most addictive legal chemical substances available
- It activates the nicotinic cholinergic receptors and releases catecholamines
- It also causes the release of dopamine (feel good neurotransmitter)
 - In addition, it blocks acetylcholine from turning off the reward center. This in turn causes a constant release of dopamine into the blood stream until the nicotine levels drop (usually at 1 hour)
- It is a potent drug with a effective delivery system

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Chemicals Found In Tobacco

- | | |
|----------------------------------|---------------------------------------|
| ■ Acetone-Nail polish remover | ■ Formaldehyde-tissue preservative |
| ■ Ammonia-toilet bowl cleaner | ■ Hexamine-charcoal lighter |
| ■ Arsenic – rat poisoning | ■ Hydrogen cyanide-gas chamber poison |
| ■ Butane-cigarette lighter fluid | ■ Mercury-thermometers |
| ■ Cadmium-batteries | ■ Methanol-rocket fuel |
| ■ Carbon monoxide-car exhaust | ■ Naphthalene-moth balls |
| ■ DDT-insecticide | ■ Nitrobenzene-gas additive |
| ■ Ethanol-alcohol | ■ Nitrous oxide-disinfectant |
| | ■ Tar-street paving material |
| | ■ Vinyl chloride-PVC pipe |

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Risks Associated with Tobacco Abuse

- COPD
- Lung Cancer
- Hypertension
- Cardiovascular disease
- Cerebrovascular disease
- PVD
- ABRS
- Asthma
- CHF

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Adenocarcinoma of the lung. This form of non-small cell lung cancer (NSCLC) is now the most common type. It typically starts in the peripheral region of the lung.

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Aging and the Lung

- Normal changes from 25-75 years
 - 20% decrease in Vital Capacity (FVC)
 - 25% decrease in FEV1 (30ml/yr.)
 - Normal aging loss: 30 mL/yr.
 - Decrease of 80-150 ml per year in FEV1.

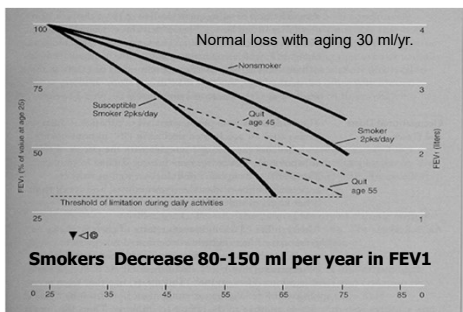
Barker, L.R. Principles of Ambulatory Medicine. Baltimore.
Williams & Wilkins 1995

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Quitting After Years of Smoking Provides Benefits



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Vaping Specific Conditions

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Vaping

- Vaping every day, using a 5% nicotine pod is about the same as smoking 1 pack of cigarettes per day in terms of nicotine exposure
 - Nicotine levels in e-cigarettes can range from 0 mg/mL to 60 mg/mL (regular cigarettes contain ~12 mg of nicotine)

https://www.mdedge.com/familymedicine/article/246447/preventive-care/youth-e-cigarette-use-assessing-and-halting-hidden?utm_medium=email&ssso=true&utm_content=Youth%20E-cigarette%20use%3A%20Halting%20the%20hidden%20habit&uac=45241HZ&utm_source=NewsMDEFAMcTOC092721F&ccd=wnl_fam_210927_mdedge_4am

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EVALI

- E-cigarette/Vaping Acute Lung Injury
 - Testing has shown that tetrahydrocannabinol (THC) and vitamin E acetate are the main ingredients linked to EVALI cases

https://www.mdedge.com/familymedicine/article/246447/preventive-care/youth-e-cigarette-use-assessing-and-halting-hidden?utm_medium=email&ssso=true&utm_content=Youth%20E-cigarette%20use%3A%20Halting%20the%20hidden%20habit&uac=45241HZ&utm_source=NewsMDEFAMcTOC092721F&ccd=wnl_fam_210927_mdedge_4am

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Acute Lung Injury

- More than 200 possible cases of acute lung injury potentially associated with vaping were reported from 25 states from July – August 2019
- Dx: acute exogenous lipid pneumonia
- Improved with IV methylprednisone
- Aerosolized oils thought to be the cause

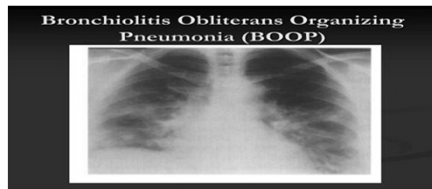


<https://www.cdc.gov/mmwr/volumes/68/wr/mm6836e1.htm> accessed 09-13-2020
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Bronchiolitis Obliterans

- Also known as popcorn lung
- Irreversible
- Alveoli become damaged and scarred
- May be due to the Vitamin E in these products



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What About Cancer

- Study conducted by the NIH showed that electronic cigarette smoke caused adenocarcinoma of the lung and bladder urothelial hyperplasia in mice
- Mice were exposed to 12 weeks of e-cig smoke

Moon-shong Tang, Xue-Ru Wu, Hyun-Wook Lee, Yong Xia, Fang-Ming Deng, Andre L. Moreira, Lung-Chi Chen, William C. Huang, Herbert Lepor. Proceedings of the National Academy of Sciences Oct 2019, 116 (43) 21727-21731; DOI: 10.1073/pnas.1911321116

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So How Can We Help An Individual To Quit Smoking and Vaping?

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Strategies for smoking cessation are the same for Vaping/E-cig cessation

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Evidence Based Interventions

- Counseling: individual, group, or telephone
- 7 medications approved by the FDA
 - 5 Nicotine replacement products
 - 2 Non-nicotine medications
- Counseling and medications
 - Double the rates of quitting
- Text messages and web-based interventions are successful

<https://www.hhs.gov/surgeongeneral/reports-and-publications/tobacco/2020-cessation-sgr-infographic-by-the-numbers/index.html> accessed 09-13-2020

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Biologic Insights Into Smoking Cessation

- Neuropeptides play a role in multiple stages of addiction to nicotine, so....modulating the function of these neuropeptides can reduce smoking behaviors
- Vaccines which generate nicotine antibodies can block the addictive effects of nicotine
- Prefrontal and cingulate cortex serve as therapeutic targets for smoking cessation
- Effectiveness of nicotine replacement may vary based on an individual's specific genotype

<https://www.hhs.gov/surgeongeneral/reports-and-publications/tobacco/2020-cessation-sgr-infographic-by-the-numbers/index.html> accessed (09-13-2020)
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CDC PSA



https://www.cdc.gov/tobacco/data_statistics/fact_sheets/cessation/quitting/ accessed 04-30-2017
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Quit Rates

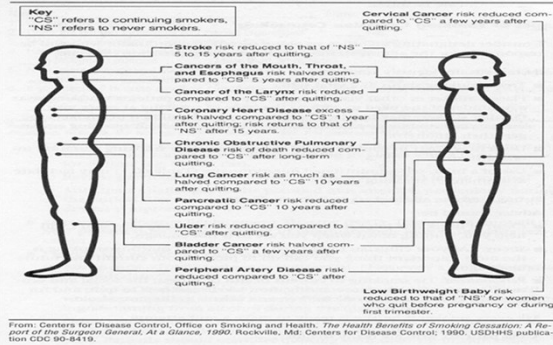
- 70% of smokers see healthcare providers
 - See us on average 3 – 4 visits per year
 - Of this number, 70% wish or express desire to quit
 - 46% will attempt to quit at some point
 - Only 50% report receiving advice to quit smoking
 - 2%-15% are offered any assistance
- 4-7% of smokers quit spontaneously each year
- Quit rates
 - If an individual talks with a healthcare provider: 10%
 - Medication: 25%
 - Organized program: 55%-60%

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Focus on the Benefits of Smoking Cessation

Figure 60.1. Benefits of Smoking Cessation



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TTUD (Treating Tobacco Use and Dependence)

- National guidelines published in 1998
- Endorsed by a number of organizations
- Provides useful strategies for the primary care provider:
 - At Every Visit, Utilize the 5 A's
 - Ask -ing all patients
 - Assess - ing readiness to quit
 - Advis- ing users to quit
 - Assist - ing patients with attempts to quit
 - Arrang - ing follow-up

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Asking All Adults

- Counsel adults to quit
 - "Ask how important it is to quit smoking?
 - If not important, what would make it become more important?
 - If important, what can I do to assist?
 - Give your opinion:
 - I think it is important for you to quit smoking now and I will help you. Cutting down when you are ill is not enough.
 - As your healthcare provider, I need you to know that quitting smoking is the single most important thing you can do for your health now and in the future

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Adults

- Counsel adults to quit
 - Personalize the message
 - Incorporate his/her health
 - Discuss that more adolescents smoke/vape if one or both parents smoke/vape
 - Personalizing the message can be very helpful such as:
 - I am concerned about the impact of your smoking or vaping on your heart or your asthma

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First of All...

- We must should discuss Prochaska and DiClemente Transtheoretical Theory
- Basically this theory proposes that behavior change occurs over a continuum and that cessation of a problem does not happen with one effort but usually in stages
- Stages of Change
 - Precontemplation: not actively thinking about change
 - Contemplation: intend to change in next 6 months but no plan to change
 - Preparation: preparing to change within the next month
 - Action: has made specific changes within 6 months
 - Maintenance: maintained a behavior change for 6 months
 - Relapse: restarted problem and has moved away from the maintenance phase

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How Does This Fit Into Smoking Cessation?

- Precontemplation
 - I have no desire to quit smoking or vaping
 - Provider: discuss personalized health benefits of quitting
- Contemplation
 - I am intending to quit smoking or vaping in the next 6 months
 - Provider: Would you be willing to work on cutting down from 1 pack per day to ½ pack per day within next 6 weeks?
 - Would you be willing to go from vaping 3 x per day to 1x per day

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How Does This Fit Into Smoking Cessation?

- Preparation
 - I am intending to quit smoking/vaping in the next month
 - Provider: Teach behavior modification, help plan for situations, set quit date, medications
- Action
 - I have quit smoking/vaping in the last 6 months
 - Provider: Provide continued guidance, medications
- Maintenance
 - I quit smoking/vaping 6 months or more ago
 - Provider: control relapse and monitor abstinence
- Relapse
 - I quit smoking/vaping 9 months ago but restarted last week
 - Provider: what can we do to get you back on track?

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Results From Study Revealed That...

- Individuals, no matter what stage he/she was in at the time of an intervention had higher quit rates than those who did not receive an intervention
- Individuals who continued to smoke, smoked fewer cigarettes than those who did not receive an intervention

Clarke, KE & Aish, A. An exploration of health belief and attitudes of smokers with vascular disease Who participate in or decline a smoking intervention program; J Vasc Nurs 2002 Sept;20(3):96-105.

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Assist by Providing Information

- Provide useful resources
- Inform friends and family of intention to quit
- Throw away cigarettes, ashtrays, lighters, vaping devices
- Avoid alcohol while attempting to quit
- Avoid locations of other smokers/users
- Book a follow-up with the patient

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What About Motivational Interviewing?

- Motivational interviewing:
 - Essentially helping patient to explore barriers between them and cessation
 - Encourages self-reliance
- 28 studies reviewed
 - Appears to be more beneficial than brief advice cessation
 - Beneficial when conducted by general practitioners
 - < 20 minutes, more effective than longer sessions

http://www.cochrane.org/CD006936/TOBACCO_does-motivational-interviewing-help-people-who-smoke-to-quit accessed 05-13-2016
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HCP Educational Opportunities

- On-line training videos
 - Motivational interviewing:
https://www.youtube.com/watch?v=T_iBbEr5e4M
- Every state also has a quit-line
 - 1-800-QUIT-NOW
 - Offers telephone counseling, self-help materials, cessation materials, referrals

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Quit Assist: Great Resource

- Live online help
- Local resources
- Digital quit-smoking plan
- Smart phone app
- Text messaging

https://www.quitassist.com/helpful-resources.htm?msclkid=057f36438cc31ee88aca53a36d7ab4f7&utm_source=bing&utm_medium=cpc&utm_campaign=Smoking%20-%20US&utm_term=organizations%20stop%20smoking&utm_content=Smoking%20-%20Smoking%20-%20Resources accessed 2-29-2024
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Assist

- Assist them with developing a quit plan
 - Set a date – Very powerful intervention
 - Total abstinence is essential
 - Anticipate challenges
 - Ask friends and family to help them by supporting their desire to quit
 - Offer treatment options

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We Must Assist With The Withdrawal Symptoms

- Constant cravings
- Insomnia
- Irritability
- Anxiety
- Depression
- Difficulty concentrating
- Restlessness
- Increased appetite

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Help Them To Overcome Barriers

- Weight gain
- Withdrawal symptoms
- Peer pressure

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Opportunities For Successful Quitting

- Average teenager has 20 visits with a healthcare provider before the age of 21
 - Many opportunities to counsel
 - 80% of teens report that if asked by clinician, he/she would honestly answer questions regarding smoking and vaping behaviors
 - Yet...only 43% of teenagers have ever been asked by clinician if he/she smokes or vapes
- And...less than 50% of adults have been asked if he/she smokes cigarettes

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Another Technique Used At Well-Child or Adolescent Exams

- HEADS Interview
 - H: Home life
 - Who lives with you? Living situation?
 - E: Education
 - How are you doing in school?
 - A: Activities
 - What do you do for fun? Hobbies?
 - D: Drugs, depression, diet
 - Do your friends smoke? Then...have your friends ever tried to get you to smoke?
 - S: Sex, safety
 - Are any of your friends having a sexual relationship?

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Screening tools

- Hooked on Nicotine Checklist (HONC)
- CRAFFT Questionnaire

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Practical/Easy Steps In Your Practice

- Examples of systems implemented in a variety of practices
 - Setting EHR reminder/template
 - Adding smoking/vaping status to the vital signs
 - Adding smoking status on the acute visit forms
 - Utilize medical assistants/nurses to provide cessation counseling

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Don't Forget the Teachable Moments

- Research has shown that quitting smoking before surgery may provide the smoker with the best opportunity to quit
 - Fewer nicotine withdrawal symptoms
 - Better postoperative recovery
 - Anesthesia is safer and with fewer risks
 - Fewer wound infections
- Discuss during a preoperative physical examination

www.nlm.nih.gov/medlineplus/print/news/fullstory_29808.html accessed on 2/12/06
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Today's Main Message

Do not give up trying
to help the
individual to quit
smoking!!!!

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Pharmacologic Treatment Options

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Nicotine Replacement Therapy (NRT)

- Meta-analysis of 123 trials that compared NRT to placebo or no treatment
- NRT increases odds of quitting by 1.5 – 2 fold
- Recommended option for all individuals who smoke 10 or more cigarettes per day

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Pharmacologic Options

- Nicotine Patch
 - Available since 1991
 - 27 studies reviewed for TTUD document
 - Patch doubles long-term abstinence rates when compared with placebo
 - 16.8% quit with patch vs. 9.6% with placebo

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Pharmacologic Options

- Nicotine Patch (Nicoderm CQ)
 - 7,14, 21 mg patches worn for 24 hours
 - Start at 21 mg unless smoker weighs < 100 pounds or smokes < 10 cigarettes/day
 - Continue 21 mg x 4 weeks then decrease dosage until individual quits (8 weeks)
 - Side effects
 - Insomnia
 - Skin irritation

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Nicotine Patch

- Nicotine Patch (Nicotrol)
 - 15 mg patch
- Worn for 16 hours
- Side effects
 - Skin irritation
 - Insomnia

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Nicotine Gum (Nicorette)

- Available since 1984; OTC in 1996
- 13 studies reviewed for TTUD document
- Quit rate at 6 months
 - 23.7% with gum vs. 17.1% with placebo
 - Higher the dosage of the gum, higher quit rate
 - 1 year: 8.4% placebo, 17.3% - 2 mg, 19.7% - 4 mg

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Nicotine Gum

- Dosage: 2 and 4 mg
 - 4 mg - \geq 25 cigarettes per day
- Instructions: Chew 1 piece every 1 – 2 hours (weeks 1 – 6) then decrease to every 2 – 4 hours (weeks 7 – 10)
- Maximum: 24 pieces/day
- Cost: Comparable to patch
- Side effects
 - Mouth soreness/irritation
 - Hiccups
 - Dyspepsia
 - Jaw soreness
 - Tolerance

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Instructions for the Gum User

- Chew gum slowly until mint or pepper is tasted
- Then...put gum between cheek and gums to permit absorption
- Repeat when taste is gone

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Nicotine Inhaler and Nasal Spray

- Introduced in the US in 1997 and 1998 respectively
- Efficacy
 - 7 studies reviewed for the TTUD document
 - Inhaler quit rates: 22.8% vs. 10.% placebo
 - Nasal spray quit rates: 30.5% vs. 13.9% placebo

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Nicotine Nasal Spray

- 1 spray each side every 1 – 2 hours
- 1 spray is = 0.5 mg
- Maximum: 40 mg/day or 80 sprays maximum
- Duration: 3 – 6 months
- Side effects
 - Nasal irritation
 - 94% of users experience in 1st 48 hours
 - 81% of users experience at 3 weeks
 - Sneezing
 - Caution in individuals with asthma, chronic nasal disorders

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Nicotine Inhaler

- 6 – 16 cartridges/day
- Dosages: 4 mg/cartridge
- Duration: 3 – 6 months
- Cost: \$5.00 -\$16.00 per day
- Side Effects:
 - Cough
 - Mouth/throat irritation
 - Caution: do not use in individuals with asthma

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Lozenge

- Brand Name: Commit
- Dosage:
 - 2 mg if first cigarette was > 30 minutes upon awakening
 - 4 mg if first cigarette was < 30 minutes from awakening
 - 1 lozenge every 1 - 2 hours
- Duration of Use: 12 week
- Common Side Effects: Insomnia, nausea, hiccups
- Patient information: allow it to dissolve – do not chew; do not eat or drink for 15 minutes before using

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Bupropion

- Wellbutrin SR
 - 1st non-nicotine drug to be indicated as a smoking cessation aid
 - Exact mechanism of action not well understood;
 - Thought to exert primary effect by inhibiting the neuronal uptake of norepinephrine and dopamine

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Bupropion

- Bupropion
 - 150 mg once daily in am as starting dose x 3 days; then increase to 150 mg bid
 - Important to emphasize that doses should be separated by 8 hours
 - Typical dosage: 300 mg/day: Maximum: 450 mg/day
 - Quit date is scheduled for 1 - 2 weeks into therapy

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Bupropion SR

- Efficacy
 - 2 studies reviewed for the TTUD document
 - Quit rates
 - 9 week study: 60.2% vs. placebo – 33.8%
 - 6 week study: 44.2% vs. placebo – 19.0%
 - 1 year: 24.4% vs. placebo – 5.6%

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Bupropion SR

Side effects

- Seizures (higher than 450 mg/day)
 - 1 in 1000 is estimated rate
- N/V
- Headaches
- Anxiety
- Insomnia
- Weight loss

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Bupropion

- Also available as an XL product
- 150 mg and 300 mg once daily

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Bupropion Should Be Avoided in Patients with

- Seizures
- Head Trauma
- Bulimia
- Anorexia

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Pfizer: Voluntary Recall

- Varenicline
 - Due to unacceptable N-nitroso-varenicline levels
 - Potential carcinogenic effect
- FDA Approved Apotex's distribution of Health Canada-approved Apo-Varenicline tablets

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Varenicline

- Brand name: Chantix (brand name d/c in the U.S) – available generic formulation
- This medication targets the nicotinic receptor in a unique way
 - Activates the nicotinic receptor to reduce both the severity of the smoker's craving but also the withdrawal symptoms
- Initiate with starter kit; refill with continuing pack
- Book f/u in 2 – 4 weeks

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Varenicline

- Trials:
 - Higher short-term success rates
 - 48% varenicline, 33% bupropion, 16% placebo at 7 weeks
 - Also helps to maintain long-term abstinence
 - Most common side effect was nausea, headache and insomnia (abnormal dreams)

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Combination Therapy

- Combination of bupropion SR and nicotine-replacement therapy
- 3 studies reviewed for TTUD document
 - Bupropion alone vs. bupropion with patch
 - Efficacy: 15.6% placebo, 16.4% patch alone, 30.3% bupropion alone, 35.5% combination
 - Combination was not statistically significant

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Additional Second Line Therapies

- Nortriptyline
 - 75 – 100 mg daily
 - When combined with NRT – the combination improves quit rates
 - Caution: anticholinergic side effects
- Clonidine
 - 0.1 – 0.3 mg bid
 - Begin 3 days before quit date
 - Side effects – sedation
 - Can use patch as well
 - Two times quit rate of placebo

<http://emedicine.medscape.com/article/287555-treatment#d10> accessed 04-30-2017

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Additional Therapies

- Naltrexone
 - Opioid antagonist
 - 50 mg once daily
 - Dizziness and headaches – most common side effects

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Additional Therapies

- Topiramate
 - 50 -200 mg daily
 - Off label but has been used for smoking and alcohol cessation
 - Kidney stones
 - Cleft lip/palate
 - Side effects

https://www.researchgate.net/publication/246763801_Off-Label_Drug_Uses_-_Topiramate_Smoking_Cessation accessed 05-13-2016

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Additional Options

- Hypnotherapy
 - Anecdotal evidence
 - Limited well-controlled trial success
- Acupuncture
 - Anecdotal evidence
 - Limited well-controlled trial success

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Nicotine Vaccine

- Human trials are currently underway
- It has successfully caused an immune reaction by stimulating the body to produce antibodies that reduce the availability of nicotine to the brain

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HEDIS

- Smoking cessation is now part of the HEDIS measures for health plans as well as healthcare providers
- HEDIS evaluations will assess providers by how many patients were advised to quit smoking and how many were given information to assist with the quitting

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Meaningful Use: Stage 2

- Meaningful use criteria insure that tobacco users are identified
 - This is one of the three core clinical quality measurements which will be required for reporting
 - Must screen at more than 80% of all visits of those who are 13 years of age and older
 - Reporting: percentage of smokers: 18 and older and percentage who receive counseling
- Also tracks interventions offered by providers

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Medicare and Medicaid Help

- The Centers for Medicare and Medicaid (CMS) announced in 2010 that is now covering smoking and tobacco use cessation counseling for certain beneficiaries that will help them quit the habit
- Medicaid covers these services in the majority of states

Morris, CD, Miller, BF, Mahalik, JL. TBM 2011;1:31-34.
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Under Medicare Regulations

- Providers have the flexibility to assist patients in the attempt to quit smoking multiple times per year
- Covers two levels of tobacco cessation counseling
 - Intermediate: (> 3 minutes – 10 minutes)
 - Intensive: (> 10 minutes)
- Medicare D: covers cessation medications

Morris, CD, Miller, BF, Mahalik, JL. TBM 2011;1:31-34.
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Codes

- CPT: 99406 or 99407
- May be billed when providing tobacco cessation counseling services

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American Cancer Society: LDCT Recommendation

- Don't forget LDCT screening
 - Age 50-80 years
 - Annual
 - Otherwise good health
 - 20 pack-year history of smoking
 - Screen until 80 years (removed quit in the past 15 years)

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USPSTF

- LDCT:
 - 50 – 80 years
 - Annual
 - In otherwise good health
 - 20 pack year history of smoking AND one of the following:
 - Currently smoking
 - Quit in the last 15 years

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Conclusions

- Smoking and vaping are worldwide epidemics
- Even simple interventions increase likelihood of quitting
- Various pharmacologic therapies exist to assist the individual with quitting
 - Healthcare providers increase the likelihood cessation if these agents are employed

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Thank You!!!

**I Would Be Happy To
Entertain Questions!!!**

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Wendy L. Wright, DNP

email: WendyARNP@aol.com

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