Care CEUs

Effects of E-Cigarette on the Mental Status of a Person

1. A patient tells the nurse, "Vapes are not tobacco because there's no leaf or smoke." Based on the course content, which response best corrects this misconception?

A. Agree that e-cigarettes are not regulated as tobacco products if they lack visible smoke
B. Explain that e-cigarettes are considered tobacco products because they typically contain nicotine extracted from tobacco
C. Clarify that e-cigarettes are classified as tobacco products only when used with cannabis liquids
D. State that e-cigarettes avoid tobacco classification because their nicotine is synthesized in a lab

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2. An adult patient reports smoking cigarettes and daily vaping. How should the nurse interpret this pattern of use?

A. Dual use that is associated with a higher risk of mental health problems than using either product alone
B. A harm-reduction strategy that substantially lowers mental health risk compared with cigarette smoking alone
C. A temporary pattern that rarely affects mood because nicotine doses are spread across products
D. A sign that vaping has replaced physiological dependence on cigarettes but not the behavioral habit

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3. In planning community education, which adult demographic should the nurse prioritize as having the highest prevalence of e-cigarette use?

A. Adults aged 45 years and older
B. Young adults aged 18–24 years
C. Adults with graduate-level education
D. Older women over 65 years of age

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4. Why is the rising use of e-cigarettes among middle and high school students particularly concerning from a mental health perspective?

A. Younger users have fully mature prefrontal cortices, which prevents long-term changes from nicotine exposure
B. Adolescent brains are still developing and are more vulnerable to nicotine's addictive and mood-altering effects
C. Nicotine exposure during adolescence is rapidly reversed once nicotine use is discontinued

D. Adolescents experience fewer withdrawal symptoms than adults due to lower receptor density

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5. A school nurse wants to improve identification of vaping among students. What communication strategy is most consistent with the content?

A. Limit screening to the term “ENDS” because it is the formal designation for all e-cigarette devices
B. Avoid using slang or brand names when asking about nicotine to maintain professional boundaries
C. Screen only for “smoking” and assume students will volunteer information about vaping if relevant
D. Use and recognize multiple terms for e-cigarettes, including brand names and youth slang, during assessment

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6. A patient who has never smoked cigarettes begins daily vaping after seeing ads that present e-cigarettes as safer. Which risk should the nurse emphasize?

A. Health risks are minimal for novel users as long as flavored, cartridge-based products are selected
B. Novel nicotine users experience a significant increase in health risks, and vaping additives can cause additional harm
C. Risks are comparable to chewing nicotine gum because both deliver nicotine without combustion
D. Vaping is protective against mental health symptoms in those who have not previously used nicotine

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7. Which neural pathway is most directly responsible for the rewarding effects of nicotine that reinforce continued use?

A. The visual pathway from the retina to the occipital lobe
B. The corticospinal tract from the motor cortex to the spinal cord
C. The mesolimbic dopamine projection from the ventral tegmental area to the nucleus accumbens
D. The dorsal column–medial lemniscus pathway from peripheral receptors to the thalamus

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8. The ?4?2 nicotinic acetylcholine receptor (nAChR) subtype has been specifically implicated in which aspect of nicotine use?

A. Maintenance of cerebellar coordination and balance during movement
B. Regulation of vomiting and swallowing reflexes in the medulla oblongata
C. Primary mediation of visual input in the occipital cortex
D. Onset of nicotine addiction via enhanced firing of dopamine-containing neurons

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9. Over time, a chronic vaper reports needing higher nicotine concentrations to feel the same effect and becomes very anxious when unable to vape. Which mechanism best explains this pattern?

A. Desensitization and subsequent upregulation of nAChRs, leading to tolerance and withdrawal symptoms
B. Permanent depletion of dopamine stores in the cerebellum, limiting reinforcement signals
C. Progressive loss of acetylcholine production in peripheral nerves without receptor changes
D. Reversal of nAChR expression back to baseline levels after each nicotine exposure

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10. Why is nicotine exposure during adolescence especially disruptive to brain development according to the course content?

A. White matter tracts are fully myelinated, preventing nicotine from reaching reward pathways
B. The adolescent brain has stable neurotransmitter systems that rapidly clear nicotine without lasting changes
C. Acetylcholine and dopamine systems and nAChR expression are still maturing, so nicotine alters reward circuitry and receptor patterns
D. nAChR expression is lower in adolescence, which decreases the brain's response to nicotine

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11. A teen who vapes reports strong urges to use whenever drinking coffee or talking on the phone. Based on nicotine neurobiology, what process is most likely occurring?

A. Conditioning of environmental cues as triggers through nicotine-induced dopamine release and new neural pathway formation
B. Suppression of hippocampal activity that prevents associative learning between cues and nicotine
C. Isolation of nicotine's effects to the spinal cord, limiting behavioral conditioning
D. Exclusive involvement of GABAergic signaling without dopaminergic participation

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12. Which statement best characterizes how nicotine alters neurotransmitter systems to reinforce addiction?

A. Nicotine activates serotonin pathways without affecting glutamate or GABA signaling in reward circuits
B. Nicotine selectively blocks dopamine release, which reduces the reinforcing value of environmental cues
C. Nicotine binding to nAChRs increases dopamine and other neurotransmitter release while lowering baseline dopamine, magnifying reward when used
D. Nicotine's actions are limited to peripheral acetylcholine receptors and do not affect central neurotransmission

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13. An anxious adolescent reports starting e-cigarettes to "take the edge off" but now feels more depressed and irritable between vaping sessions. How does the course content explain this pattern?

A. Nicotine initially feels like self-medication but dependence and withdrawal ultimately worsen anxiety and depressive symptoms
B. Nicotine use directly cures anxiety yet unmasked an unrelated primary mood disorder
C. Vaping stabilizes dopamine signaling, so worsening mood is unrelated to nicotine
D. Nicotine use halts brain development, permanently fixing mood at pre-use levels

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14. A clinician reviews PHQ-9, GAD-7, and PTSD screening scores in a group of young adults. According to the evidence cited in the content, which pattern would be expected among regular vapers?

A. Higher scores for depression, anxiety, PTSD, and ADHD compared with non–e-cigarette users
B. Lower internalizing symptom scores due to nicotine's calming effect on the limbic system
C. Similar mental health scores to non-users once demographic factors are controlled
D. Elevated PTSD scores only, with minimal association with depression or anxiety

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15. In the emergency department, an adolescent with a history of PTSD abruptly stopped heavy vaping two days ago and now presents with agitation, panic-like anxiety, and insomnia. What is the most appropriate nursing approach?

A. Treat immediately as a primary psychotic disorder without considering recent nicotine cessation
B. Attribute the episode to expected nicotine withdrawal and discharge with reassurance
C. Continue a full medical and toxicologic evaluation while recognizing that nicotine withdrawal can mimic primary psychiatric and medical conditions
D. Delay screening for nicotine until after psychiatric stabilization is complete

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16. Which statement about adolescent e-cigarette use and suicidality aligns with the cited evidence?

A. Suicide attempt rates are similar in adolescent vapers and non-vapers when depressive symptoms are present
B. Vaping is associated with lower rates of suicide attempts due to stress relief
C. Suicidality in adolescents is unrelated to nicotine use when alcohol and cannabis are present
D. Adolescents who use e-cigarettes have higher rates of suicidal ideation and suicide attempts than non-users

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17. A patient with major depression asks whether quitting nicotine will destabilize her mood. What should the nurse emphasize based on the course content?

A. Mental health symptoms remain unchanged after nicotine cessation because neurotransmitter systems do not adapt
B. Former nicotine users report lower levels of anxiety, depression, and stress and improved quality of life after cessation

C. Anxiety and depression usually become permanently worse after nicotine cessation in individuals with mood disorders
D. Nicotine cessation benefits physical health but has no measurable impact on mental health outcomes

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18. Why is nicotine use particularly concerning for people with severe mental illness such as schizophrenia, bipolar disorder, or PTSD?

A. Tobacco use in this population has negligible impact on long-term health outcomes
B. Nicotine consistently improves antipsychotic efficacy and reduces cardiovascular mortality in this group
C. Comorbid nicotine use in severe mental illness usually eliminates the need for psychotropic medications
D. They have markedly higher rates of nicotine use, shortened life expectancy, and may require higher psychiatric medication doses while using tobacco

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19. According to the content, which combination of factors increases an adolescent's likelihood of initiating e-cigarette use?

A. Limited access to flavored products and active school-based prevention programs
B. High academic achievement, strong parental monitoring, and negative peer attitudes toward vaping
C. Peer and parental tobacco use, lower socioeconomic status, poor school performance, low self-esteem, and belief that vaping relieves stress
D. Consistent participation in supervised extracurricular activities and strong refusal skills

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20. How do genetic differences in nicotine metabolism influence dependence and withdrawal according to the course content?

A. Genetic differences in nicotine metabolism affect lung cancer risk but do not alter withdrawal symptoms
B. Faster metabolizers tend to use more nicotine per day and have more severe withdrawal, while slower metabolizers tend to use less and have milder withdrawal
C. Slower metabolizers are more likely to escalate daily nicotine intake to avoid aversive effects
D. Metabolic rate determines flavor preferences but not dependence severity

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21. Which e-cigarette user is at particularly high risk for acute anxiety after vaping, based on the described data?

A. An adult using nicotine replacement therapy under medical supervision
B. An adult without psychiatric history who vapes once per month
C. A healthy adolescent who tried vaping at a single social event
D. A person with five or more persistent psychiatric conditions who vapes regularly

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22. What does the evidence suggest about the mental health impact of secondhand exposure to e-cigarette emissions in children?

A. Passive exposure to e-cigarette emissions is associated with similar risks for moderate to severe internalizing problems as secondhand cigarette smoke
B. Secondhand e-cigarette emissions are largely inert and show no measurable mental health impact
C. E-cigarette emissions protect against anxiety because they contain fewer combustion products
D. Mental health effects occur only when passive exposure coexists with active cigarette smoking

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23. A pregnant patient reports switching from cigarettes to flavored e-cigarettes because she believes they are safer for her baby. What should the nurse emphasize?

A. Prenatal nicotine exposure affects maternal lungs only and has not been associated with child behavioral outcomes
B. E-cigarettes provide a nicotine source that does not reach the fetus because there is no combustion
C. Flavored e-cigarettes eliminate nicotine exposure and therefore pose minimal developmental risk
D. Nicotine from e-cigarettes crosses the placenta and is linked to altered fetal brain development and later behavioral and emotional problems

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24. According to the course content, which group is at elevated risk for severe mental health symptoms during nicotine withdrawal?

A. Adolescents, high-volume pod or disposable users, individuals with preexisting psychiatric conditions, and hospitalized patients
B. Occasional adult social smokers without other substance use
C. Short-term nicotine gum users attempting cessation for the first time
D. Adults who gradually taper nicotine with close psychiatric follow-up

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25. In SBIRT, a clinician reviews a positive TAPS result, provides feedback about risks, and explores the patient's motivation to cut down vaping. Which SBIRT component does this interaction represent?

A. Referral to treatment
B. Screening
C. Brief intervention
D. Detoxification planning

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26. Why does the American Academy of Pediatrics recommend universal screening for tobacco and e-cigarette use beginning at age 11?

A. Screening after age 18 is sufficient because adolescent brains are fully developed by mid-teens
B. Nicotine dependence rarely appears before age 11, so earlier screening is unnecessary
C. Adolescents typically self-refer for nicotine concerns without prompting from clinicians
D. Most adult nicotine users initiate use before age 18, and universal screening reduces bias and improves detection of early e-cigarette use

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27. When screening a 16-year-old for e-cigarette use, which method is most likely to yield accurate information according to the content?

A. Relying on the parent's report of the adolescent's substance use history
B. Brief verbal questioning in front of parents to encourage family transparency
C. A confidential, self-administered validated screening questionnaire that includes vaping items
D. Open-ended clinician interview without structured questions about vaping

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28. A nurse documents that a patient vapes high-nicotine pods several times per day, refills devices twice weekly, and previously experienced severe anxiety during cessation attempts. Why is this level of detail important?

A. It informs assessment of withdrawal risk and guides decisions about behavioral and pharmacologic support for cessation
B. It determines whether the patient qualifies for legal penalties related to vaping frequency
C. It replaces the need for any formal screening tools such as TAPS or CRAFFT
D. It allows the clinician to estimate cardiac output changes without further evaluation

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29. A nurse helps a patient design an e-cigarette quit plan. Which action reflects an evidence-based component of this plan?

A. Choosing a quit date within the next two weeks, identifying triggers, supports, and coping strategies for cravings
B. Setting a quit date several months away to avoid short-term stressors and revisiting it annually
C. Focusing on abrupt, unplanned cessation to maximize willpower and minimize preparation
D. Avoiding discussion of triggers to prevent reinforcing associations with vaping

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30. Why is combining nicotine replacement therapy (NRT) with varenicline or bupropion especially helpful for some e-cigarette users?

A. Combination therapy accelerates nicotine metabolism so users experience stronger withdrawal to encourage abstinence
B. Varenicline and bupropion completely replace the need for any nicotine exposure during cessation
C. NRT addresses physical dependence while varenicline or bupropion modulates nAChRs or dopaminergic transmission, reducing cravings and withdrawal

D. These medications act on lung tissue to reverse structural changes from vaping aerosol

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