

ENDS (Electronic Nicotine Delivery System, “E-cigarettes”) Treatment Recommendations

Dependence measured by [\[Penn State Electronic Cigarette Dependence Index - Penn State College of Medicine Research \(psu.edu\)\]](#)

Penn State Electronic Cigarette Dependence Index Score	Level of Dependence
0-3	Not Dependent
4-8	Low Dependence
9-12	Medium Dependence
13+	High Dependence

Adolescents

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- American Academy of Pediatrics (AAP): “Given the effectiveness of NRT for adults and the severe harms of tobacco dependence, AAP policy recommends that pediatricians consider off-label NRT for youth who are moderately or severely addicted to nicotine and motivated to quit.”

Level of Dependence	Nicotine Gum	Nicotine Lozenge	Nicotine Patch
Medium	2 mg	2 mg	14 mg, step down
High	4 mg	4 mg	21mg, step down

[Nicotine Replacement Therapy and Adolescent Patients \(aap.org\)](#)

*Note: Youth < 18 years of age may need a prescription from a healthcare provider to access all forms of NRT.

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Adult Daily Users Medication Options		
Varenicline		
Days 1 to 3: 0.5 mg orally once a day Days 4 to 7: 0.5 mg orally twice a day Continuing Weeks: 1 mg twice daily for a total of 12 weeks		
Nicotine replacement therapy (NRT)		
<i>Low Dependence</i>	<i>Medium Dependence</i>	<i>High Dependence</i>
As needed NRT: 2-mg or 4-mg nicotine lozenge or nicotine gum	14-mg patch + as needed NRT with 2-mg lozenge, 2-mg nicotine gum or nasal spray with patch titration <ul style="list-style-type: none"> Titrate up the patch if they are using a large amount of nicotine lozenges, nicotine gum or nicotine nasal spray per day <p>Example: On a 14-mg patch and they are using 10 x 2-mg gum* per day, increase the patch to 21-mg and continue as needed NRT</p> <ul style="list-style-type: none"> *Note: 1 mg of nicotine is absorbed from a 2-mg nicotine gum and 1.3 mg of nicotine is absorbed from the 2-mg nicotine lozenge <p>Example: On a 14-mg patch and they are using 10 or more nasal spray doses* (1 spray each nostril) per day, increase the patch to 21-mg and continue as needed NRT</p> <ul style="list-style-type: none"> *Note: 1 mg of nicotine is absorbed from 1 dose of the nicotine nasal spray (1 spray in each nostril.) 	21-mg patch + as needed NRT with 4-mg nicotine lozenge, 4-mg nicotine gum or nicotine nasal spray with patch titration <ul style="list-style-type: none"> Titrate up the patch if they are using a large amount of nicotine lozenges, nicotine gum or nicotine nasal sprays per day <p>Example: On a 21-mg patch and they are using 10 x 2-mg gum* per day, increase the patch to 28-mg and continue as needed NRT</p> <ul style="list-style-type: none"> *Note: 1 mg of nicotine is absorbed from a 2-mg nicotine gum and 1.3 mg of nicotine is absorbed from the 2-mg nicotine lozenge <p>Example: On a 21-mg patch and they are using 10 nasal spray doses* (1 spray each nostril), increase the patch to 28-mg and continue as needed NRT</p> <ul style="list-style-type: none"> *Note: 1 mg of nicotine is absorbed from 1 dose of the nicotine nasal spray (1 spray in each nostril.)
Other Medication Options: <ul style="list-style-type: none"> Bupropion SR (also known as Wellbutrin and Zyban) 		
Adult Non-Daily Users Medication Options		
Nicotine replacement therapy : As needed NRT: 2-mg or 4-mg nicotine lozenge or nicotine gum		