

Tobacco Treatment Medication Prescribing Chart

When a person stops smoking, you may need to adjust dosage of medications that interact with tobacco smoke.

For patients who are not ready to reduce their use or quit, consider:

- Short-acting NRT (for patients who want to avoid smoking for short time periods)
- Combination NRT (for patients who want to avoid smoking for longer periods of time)

For patients who are ready to reduce their use or quit, consider:

- Combination NRT
 - Varenicline (flexible options are available)
 - Bupropion (with or without short-acting NRT — consider particularly for comorbid depression)
- Varenicline and combination NRT are the most effective options.**

Medication ¹	Suggested Regimen (Can All Be Used With Patients Who Smoke or Use E-cigarettes or Vaping Products)	Precautions	Contraindications	Potential Adverse Effects	
Nicotine Replacement Therapy (NRT)	Patch² Long-acting NRT	<ul style="list-style-type: none"> ■ Pregnancy Class D⁴ ■ Uncontrolled hypertension ■ Advise starting with the highest-dose patch available except for patients weighing less than 100 pounds. ■ Skin disorders, magnetic resonance imaging (MRI) or allergy to adhesive tape (patch) ■ Temporomandibular joint (TMJ) disease, dental work or dentures (gum) ■ Stomach ulcer (gum, lozenge, nasal spray or inhaler) ■ Sodium-restricted diet (gum, lozenge or nasal spray) ■ Reactive airway disease (nasal spray or inhaler) ■ Sinusitis or rhinitis (nasal spray) 	<ul style="list-style-type: none"> ■ Heart attack within two weeks ■ Serious cardiac arrhythmia ■ Unstable angina 	<ul style="list-style-type: none"> ■ Symptoms of too much nicotine, such as nausea, headache, dizziness or fast heartbeat ■ Jaw pain or dry mouth (gum) ■ Hiccups or heartburn (gum or lozenge) ■ Mouth and throat irritation (inhaler) ■ Skin irritation or insomnia (patch) ■ Bronchospasm (nasal spray or inhaler) ■ Nasal irritation, tearing or sneezing (nasal spray) 	
	Gum² Short-acting NRT				<ul style="list-style-type: none"> ■ Smokes 10 or fewer cigarettes per day: Start with 14 milligrams (mg) per day for six weeks, followed by 7 mg per day for two weeks.³ ■ Smokes more than 10 cigarettes per day: Start with 21 mg per day for six weeks, followed by 14 mg per day for two weeks, followed by 7 mg per day for two weeks.
	Lozenge² Short-acting NRT				<ul style="list-style-type: none"> ■ First smokes or vapes more than 30 minutes after waking up: 2 mg strength (up to 24 pieces per day) ■ First smokes or vapes within 30 minutes of waking up: 4 mg strength (up to 24 pieces per day)
	Nasal spray² Short-acting NRT				<ul style="list-style-type: none"> ■ First smokes or vapes more than 30 minutes after waking up: 2 mg strength (up to 20 lozenges per day) ■ First smokes or vapes within 30 minutes of waking up: 4 mg strength (up to 20 lozenges per day)
	Inhaler² Short-acting NRT				<ul style="list-style-type: none"> ■ One to two sprays per hour as needed (maximum of 40 sprays per day for up to three months)
<p>The long-acting NRT patch can be combined with any short-acting NRT (gum, lozenge, nasal spray or inhaler).</p>					

Medication ¹	Suggested Regimen (Can All Be Used With Patients Who Smoke or Use E-cigarettes or Vaping Products)	Precautions	Contraindications	Potential Adverse Effects
Bupropion SR (Zyban and Wellbutrin)	<ul style="list-style-type: none"> Days 1 to 3: 150 mg by mouth per day Day 4 to Week 12 or end of treatment: 150 mg by mouth twice per day Can be maintained for up to six months (24 weeks) Can be combined with NRT 	<ul style="list-style-type: none"> Pregnancy Class C Uncontrolled hypertension Severe cirrhosis — dose adjustment required Mild to moderate hepatic impairment or moderate to severe renal impairment — consider dose adjustment 	<ul style="list-style-type: none"> Monoamine oxidase inhibitor (MOAI) in past 14 days Seizure disorder, bulimia or anorexia Abrupt discontinuation of ethanol or sedatives 	<ul style="list-style-type: none"> Insomnia, dry mouth, headaches, pruritus, pharyngitis, tachycardia, seizures, neuropsychiatric effects or suicide risk <p>In 2016, the Food and Drug Administration (FDA) removed the boxed warning for this medication. fda.gov/Drugs/DrugSafety/ucm532221.htm</p>
Varenicline (Chantix)	<ul style="list-style-type: none"> Starting month pack: Start one week before the quit date: 0.5 mg by mouth per day for three days, then 0.5 mg by mouth twice per day for four days, then 1 mg by mouth twice per day for three weeks Continuing month pack: Weeks 5 to 12 or end of treatment: 1 mg by mouth twice per day Can be maintained for up to six months (24 weeks) Flexible alternative regimens are available.⁵ Can be combined with NRT⁵ 	<ul style="list-style-type: none"> Pregnancy Class C Seizure disorder Operation of heavy machinery Creatine clearance (CrCl) less than 30 or dialysis — dose adjustment required May increase risk of cardiovascular (CV) events in patients with CV disease May lower alcohol tolerance 	<ul style="list-style-type: none"> Known history of serious hypersensitivity or skin reactions to varenicline 	<ul style="list-style-type: none"> Nausea, insomnia, abnormal dreams, constipation, neuropsychiatric effects, seizures, suicide risk or CV events <p>In 2016, the FDA removed the boxed warning for this medication. fda.gov/Drugs/DrugSafety/ucm532221.htm</p>

Tobacco Treatment Medication Brief Instructions

Product	Nicotine Patch	Nicotine Gum	Nicotine Lozenge	Nicotine Nasal Spray	Nicotine Inhaler	Bupropion SR (Zyban and Wellbutrin)	Varenicline (Chantix)
<p>Brief Instructions</p> <p>Share How To Use Tobacco Treatment Medications: A Pocket Guide with your patients.</p>	Apply one patch to clean, dry, hairless skin, such as the upper arm, upper back, shoulder, lower back or hip. Avoid moisturizers under the patch and wash hands after use. Replace after waking up and rotate the site daily.	Chew until a peppery taste and slight tingle occur, then park between the cheek and gum. When the taste fades, chew again, then park in another area of the mouth. Avoid eating and drinking for 15 minutes before and after use.	Allow the lozenge to dissolve slowly between the cheek and gum without chewing or swallowing. Avoid eating and drinking for 15 minutes before and after use.	Blow nose if not clear and tilt head back. Insert the bottle tip as far in the nostril as comfortable and spray once in each nostril. Do not sniff or inhale through the nose while spraying — breathe through the mouth. Wait two to three minutes before blowing nose.	Inhale using short breaths or puffs to get aerosol in the mouth and throat, but not the lungs. Store cartridges at a temperature between 60 and 77 degrees Fahrenheit for maximum effectiveness.	Take with food. Take one pill for three days, then two pills starting on Day 4. Take the second pill at least eight hours after the first but as early as possible to avoid insomnia.	Take with food and water as directed. Do not make up a missed dose by doubling up the next dose.

Reducing or Quitting Smoking: Adjusting Dosing of Other Medications and Caffeine Intake

Tobacco smoke contains polycyclic aromatic hydrocarbons, which stimulate human cytochrome P450 1A2 (P450) enzymes. P450 enzymes metabolize about 20% of clinically used drugs.* As a result, changes in smoking behaviors can affect the metabolism of some other medications.

When people cut down on smoking, with or without medications, their P450 system is reduced to a lower level of functioning.

- Some medications will be metabolized more slowly and their dosing may need to be decreased.
- The metabolic changes are caused by inhaling tobacco smoke, **not nicotine**, so if someone is using NRT, adjustments are still needed.

Because smoking rates are higher among people with behavioral health conditions, it is particularly important to be aware of interactions with substance use treatment and psychiatric medications.

The **following key medications or classes may require decreased dosing** when patients cut down on smoking to avoid adverse effects or remain within a therapeutic window†:

Caffeine

Cut down on caffeine to avoid symptoms such as insomnia, restlessness and anxiety.

Opioids and benzodiazepines

Monitor for increased sedation and reduce dosing as needed.

Antipsychotics

- Clozapine
- Olanzapine
- Haloperidol
- Chlorpromazine

Monitor plasma levels for drugs with a narrow therapeutic window.

Antidepressants (tricyclics, selective serotonin reuptake inhibitors [SSRIs] and serotonin-norepinephrine reuptake inhibitors [SNRIs])

- Nortriptyline
- Fluvoxamine
- Imipramine
- Duloxetine
- Mirtazapine

Monitor for adverse effects and reduce dosing as needed.

*Wang B, Zhou S-F. Synthetic and natural compounds that interact with human cytochrome P450 1A2 and implications in drug development. *Curr Med Chem.* 2009;16(31):4066-4218. doi:10.2174/092986709789378198

†Selby P, Zawertailo L. Tobacco addiction. *N Engl J Med.* 2022;387(4):345-354. doi:10.1056/NEJMcp2032393

For more provider and patient resources, visit [nyc.gov/health](https://www.nyc.gov/health) and search for **tobacco treatment**.

¹Review the How Can I Get Tobacco Treatment Medications? Insurance Guide (available at [on.nyc.gov/tobacco-insurance-guide](https://www.nyc.gov/tobacco-insurance-guide)) for details on insurance coverage. New York State Medicaid covers all medications. Uninsured patients or those with gaps in coverage may want to consider New York City's official prescription discount card, BigAppleRx, which provides savings, even on over-the-counter medications (with a prescription).

²In 2013, the FDA did not identify any safety risks associated with longer-term use of NRT. Tailor to the patient's needs if longer duration is helpful.

³For patients who vape, try to gauge their nicotine intake to determine the best starting dose. If they use a high-nicotine-concentration product (for example, 4% to 5%) or if a pod, cartridge or disposable device lasts two days or less, start with a 21 mg patch. If they use a low-nicotine-concentration product (for example, 0% to 2%), if a pod, cartridge or disposable device lasts longer than two days, or if the patient reports using a tank-based or refillable device, start with a 14 mg patch. Follow up, as adjustments may be needed.

⁴Consider NRT on a case-by-case basis if counseling alone is ineffective, the patient is struggling to meet their goals, and the risks and benefits have been carefully assessed with the patient. If prescribed, try to use the lowest possible dose and start with only short-acting NRT.

⁵Alternatively, the patient can choose a **flexible quit date** (start varenicline, then quit between Days 8 and 35) or **gradual quit date** (start varenicline, then reduce smoking by 50% by Week 4, reduce by an additional 50% by Week 8 and continue reducing with a goal of complete abstinence by Week 12). Combining varenicline with NRT is being studied and may also increase efficacy.

These instructions were adapted with permission from MaineHealth Center for Tobacco Independence's **Tobacco Treatment Medication Dosing Guidelines**. Visit ctimaine.org and search for **medication dosing guidelines**.

Zyban and Wellbutrin are registered trademarks of GlaxoSmithKline. Chantix is a registered trademark of Pfizer Inc. The use of brand names does not imply endorsement of any product by the NYC Department of Health and Mental Hygiene.

Please consult prescribing information for complete usage and safety information.