

Clinical Use Guidelines for all Pharmacotherapies Approved by the FDA for Tobacco Cessation

	Availability	Precautions/ Contraindications	Common Side Effects*	Dosage	Duration	Absorption Rate
Nicotine Gum	Over the counter as: Nicorette Nicorelief Thrive Generic		Mouth soreness Dyspepsia Hiccups	4mg - use if they smoke 1st cigarette within 30 mins of waking 2mg - use if they smoke 1st cigarette after 30 mins of waking – Use for up to 30 mins	Up to 12 weeks Weeks 1-6 - 1 every 1-2 hrs Weeks 7-9 - 1 every 2-4 hrs Weeks 10-12 - 1 every 4-8 hrs	Highest levels at 30-60 mins
Nicotine Inhaler	Prescription only as: Nicotrol inhaler		Local irritation of mouth/throat	10 mg cartridges (4 mg delivered) Use 6-16 cartridges/day or 1 every 1-2 hrs – Puff cartridge for up to 20 mins	Up to 12 weeks	Highest levels at 30 mins
Nicotine Lozenge	Over the counter as: Commit lozenge Equate Nicorette Generic		Mouth/throat soreness Dyspepsia	4mg - use if they smoke 1st cigarette within 30 mins of waking 2mg - use if they smoke 1st cigarette after 30 mins of waking	Up to 12 weeks Weeks 1-6 - 1 every 1-2 hrs Weeks 7-9 - 1 every 2-4 hrs Weeks 10-12 - 1 every 4-8 hrs	Highest levels at 30-60 mins
Nicotine Nasal Spray	Prescription only as: Nicotrol NS	Asthma Chronic nasal disorders Severe reactive airway disease	Nasal irritation Throat irritation Rhinitis Change in taste/smell	1 dose = 1 spray in each nostril (1mg) 1-2 doses/hr *Not to exceed 5 doses/hr or 40 doses/day	12 weeks *Not to exceed 6 months	Highest levels at 10-15 mins
Nicotine Patch	Over the counter as: Equate Habitrol NicoDerm CQ Generic		Local skin irritation Insomnia Vivid dreams	21 mg 14 mg 7 mg – Change every 24 hours	8-10 weeks If 10+ cigarettes/day: Weeks 1-6 - 21 mg Weeks 7-8 - 14 mg Weeks 9-10 - 7 mg If <10 cigarettes/day: Weeks 1-6 - 14 mg Weeks 7-8 - 7 mg	Highest levels at 3-12 hours
Bupropion SR**	Prescription only as: Zyban Generic Wellbutrin (depression)	History of seizure History of eating disorder Bipolar disorder MAOI within 2 weeks	Insomnia Dry mouth Agitation Nausea Dizziness Headache	150 mg every morning for 3 days, then 150 mg twice daily for 6-12 weeks – Begin treatment 1-2 weeks pre-quit	7-12 weeks *Maintenance up to 6 months possible	N/A
Varenicline**	Prescription only as: Chantix	Psychiatric illness Kidney disease Cardiac problems Individuals who drive/operate machinery Some medications*	Nausea Headache Insomnia Abnormal dreams Constipation Flatulence	0.5 mg a day for 3 days, then 0.5 mg twice daily for 4 days, then 1 mg twice daily for 11 weeks – Begin treatment 1 week pre-quit	12 weeks *Additional 12 week course possible	N/A

*Consult full prescribing information. **Patients should stop taking varenicline or bupropion SR and contact a health care provider immediately if they experience agitation, depressed mood, and any changes in behavior that are not typical of nicotine withdrawal, or they experience suicidal thoughts or behavior.

Fagerström Test for Nicotine Dependence (FTND)

Heavy Smoking Index (HSI)	How soon after waking do you smoke your first cigarette?	Within 5 mins	3
		5-30 mins	2
		31-60 mins	1
Heavy Smoking Index (HSI)	How many cigarettes do you smoke each day?	10 or less	0
		11 to 20	1
		21 to 30	2
		31 or more	3
Do you find it difficult not to smoke in places where smoking is not allowed?	Yes	1	
	No	0	
Which cigarette would you most hate to give up?	First in the morning	1	
	Any other one	0	
Do you smoke more in the first few hours after waking than the rest of the day?	Yes	1	
	No	0	
Do you smoke even when you're sick and in bed most of the day or are having trouble breathing?	Yes	1	
	No	0	

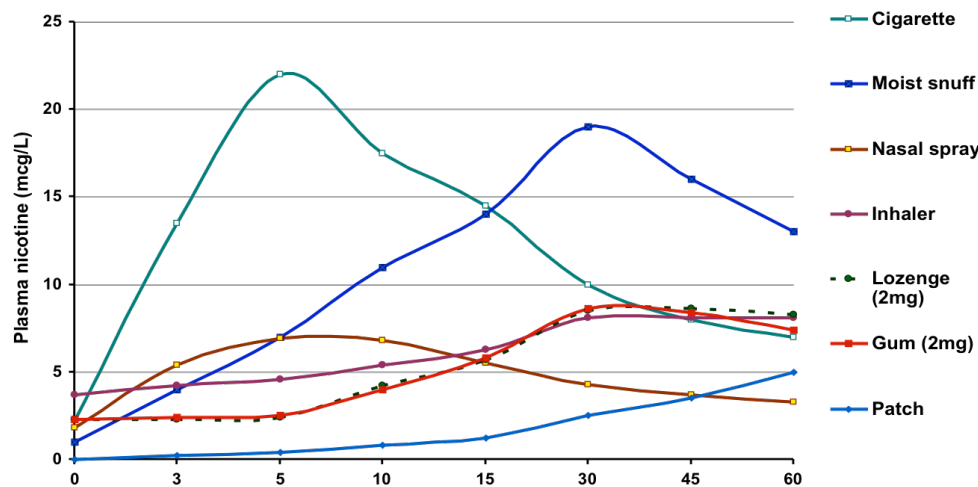
NOTE: For brief interactions, use the Heavy Smoking Index to assess a client's NRT needs.

NRT Recommendations Based on Dependence Level

Dependence Level	NRT Dosage	Combination Therapies
High FTND (8+) HSI (5-6)	Patch: 21mg/24hr* Inhaler: 6-12 cartridges/day Lozenge: 4mg Gum: 4mg	Patch: 21mg/24hr AND Lozenge or gum: 2mg
Moderate FTND (5-7) HSI (4)	Patch: 21mg/24hr* Inhaler: 6-12 cartridges/day Lozenge: 4mg Gum: 4mg	Patch: 21mg/24hr AND Lozenge or gum: 2mg
Low to Moderate FTND (3-4) HSI (3)	Patch: 14mg/24hr Inhaler: 6-12 cartridges/day Lozenge: 2mg Gum: 2mg	Patch: 14mg/24hr AND Lozenge or gum: 2mg
Low** FTND (1-2) HSI (1-2)	Patch: 7mg/24hr Lozenge: 2mg Gum: 2mg	

*May require more than one patch depending on withdrawal symptoms. Assess based on number of cigarettes smoked per day. **May not require NRT. Monitor for withdrawal symptoms.

Plasma Nicotine Concentration Levels



Hukkanen, Jacob, & Benowitz, 2005

Nicotine Delivery for NRT

- The nicotine **patch** is **long-acting** and has a **slow onset**
- The nicotine **gum, lozenge, and inhaler** are **short-acting** and have an **intermediate onset**
- The **nasal spray** is **short-acting** and has a **rapid onset**

Nicotine Delivery for Cigarettes

One cigarette delivers ~1-2 mg of nicotine and reaches the brain within 10 seconds. This means that a person who smokes:

- ½ pack/day = 10-20mg of nicotine
- 1 pack/day = 20-40mg of nicotine
- 1½ packs/day = 30-60mg of nicotine
- 2 packs/day = 40-80mg of nicotine

NOTE: For individuals with high levels of tobacco use and dependence, it is important to use a dosage high enough to manage withdrawal symptoms. This may include the use of multiple nicotine patches and/or combination therapies. It is also safe to use NRT for a duration longer than the 12-weeks listed on the packaging.

