

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

	Availability	Precautions/ Contraindications	Common Side Effects*	Dosage	Duration	Absorption Rate
<b>Nicotine Gum</b>	<b>Over the counter as:</b> Nicorette Nicorelief Thrive Generic		Mouth soreness Dyspepsia Hiccups	<b>4mg</b> - use if they smoke 1st cigarette within 30 mins of waking <b>2mg</b> - 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
<b>Nicotine Inhaler</b>	<b>Prescription only as:</b> Nicotrol inhaler		Local irritation of mouth/throat	<b>10 mg cartridges</b> (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
<b>Nicotine Lozenge</b>	<b>Over the counter as:</b> Commit lozenge Equate Nicorette Generic		Mouth/throat soreness Dyspepsia	<b>4mg</b> - use if they smoke 1st cigarette within 30 mins of waking <b>2mg</b> - 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
<b>Nicotine Nasal Spray</b>	<b>Prescription only as:</b> 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
<b>Nicotine Patch</b>	<b>Over the counter as:</b> Equate Habitrol NicoDerm CQ Generic		Local skin irritation Insomnia Vivid dreams	21 mg 14 mg 7 mg  – Change every 24 hours	8-10 weeks  <b>If 10+ cigarettes/day:</b> Weeks 1-6 - 21 mg Weeks 7-8 - 14 mg Weeks 9-10 - 7 mg <b>If &lt;10 cigarettes/day:</b> Weeks 1-6 - 14 mg Weeks 7-8 - 7 mg	Highest levels at 3-12 hours
<b>Bupropion SR**</b>	<b>Prescription only as:</b> 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
<b>Varenicline**</b>	<b>Prescription only as:</b> 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
	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

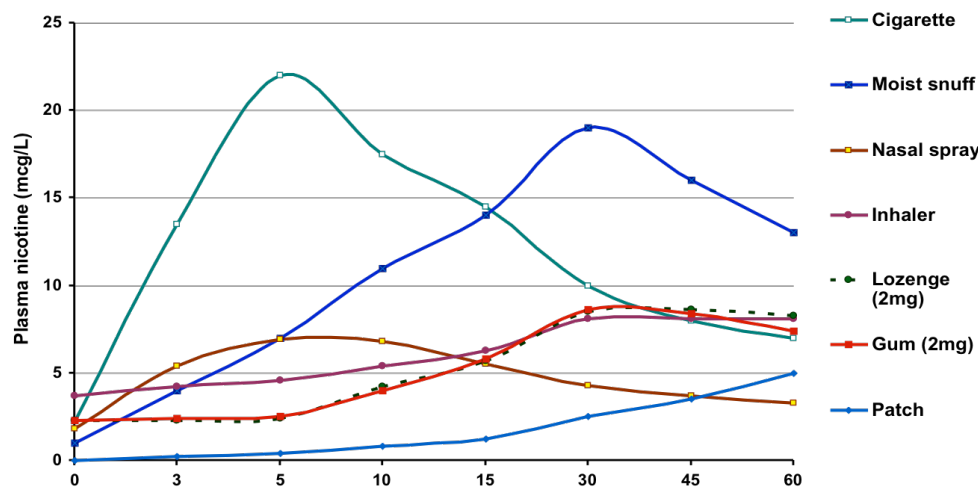
NOTE: For brief interactions, use the Heavy Smoking Index to assess a client's NRT needs.

## NRT Recommendations Based on Dependence Level

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

