

## Nicotine Replacement Therapy (NRT)

NRT reduces the physiological craving for a cigarette by supplying the body with nicotine. It does not prevent the psychological desire to smoke. The purpose of using NRT is to take the edge off withdrawal symptoms by providing a level of nicotine while the client deals with their habit and the triggers that make them reach for a cigarette.

### Possible Withdrawal Symptoms from Nicotine

Symptom	Duration	Prevalence
Irritability/aggression	less than 4 weeks	50 %
Depression	less than 4 weeks	60 %
Restlessness	less than 4 weeks	60 %
Poor concentration	less than 2 weeks	60 %
Increased appetite	more than 10 weeks	70 %
Light-headedness	less than 48 hours	10 %
Night-time awakenings	less than 1 week	25 %
Urges to smoke	more than 2 weeks	70 %

From: West, R (1999) Tobacco Withdrawal Symptoms

With all NRT products, the aim is to gradually reduce their strength / quantity / frequency of use over 8-12 weeks, depending on the product and the individual.

NRT is most effective when used regularly throughout the day. Beware of unrealistic expectations. The NRT will help, but the client still needs to be motivated and to plan their quit attempt carefully. Beware also of stopping use too early as this may lead to relapse.

See the guide to NRT on the next page for more details.

# A guide to Nicotine Replacement Therapy

	Patches	Gum	Lozenge	Microtab	Inhalator	Nasal Spray
Doses	<p>16 hr Patches &gt;10cpd or more: 15mg patch for 8 weeks 10mg patch for 2 weeks &lt;10cpd or less: 10mg patch for 6 weeks 5 mg patch for 2 weeks</p> <p>* 24hr Patch &gt;10 cpd or more: 21mg patch for 6 weeks 14mg patch for 4 weeks 7mg patch for 2 weeks &lt;10cpd or less: 14mg patch for 6 weeks 7mg patch for 2 weeks</p>	<p>2 strengths 4mg / 2mg Max 15 pieces daily &gt;20 cpd or more 4mg &lt;20 cpd or less 2mg Gradual withdrawal over 3 months. Treatment should not exceed 6 months</p>	<p>3 strengths 4mg / 2mg / 1mg Max 15 daily &gt;20cpd or more 4mg &lt;20 cpd or less 2mg 1 every 1-2 hrs for 6 weeks then 1 every 4-8 hrs for 3 weeks Gradual withdrawal over 3 months. Treatment should not exceed 6 months</p>	<p>1 strength 2mg Max 80mg day &gt;20cpd or more 4mg each hour &lt;20 cpd or less 2mg each hour gradual withdrawal over 3 months</p>	<p>10mg cartridge Max 12 caps daily 1 cartridge lasts for up to 20 mins of intensive use Initially use between 6 &amp; 12 cartridges daily for up to 8 weeks, then half over next 2 weeks, then half again Gradually reduce over next 4 weeks Max length of course 3 months</p>	<p>10mg / ml Max 64 sprays daily Apply 1 spray into each nostril as required for a max twice an hour for 16 hours daily for 8 weeks Gradually reduce over next 4 weeks Max length of course 3 months</p>
Administration	<ul style="list-style-type: none"> <li>apply to dry, non-hairy skin on the upper body</li> <li>avoid using same site</li> <li>change daily</li> </ul>	<ul style="list-style-type: none"> <li>1 piece of gum should be chewed &amp; 'parked' for 30 mins</li> <li>Use regularly</li> </ul>	<ul style="list-style-type: none"> <li>1 lozenge should be 'parked' for 30 mins</li> <li>Use regularly</li> </ul>	<ul style="list-style-type: none"> <li>Place tablets under tongue &amp; allow to dissolve</li> <li>Use regularly</li> </ul>	<ul style="list-style-type: none"> <li>Puff or suck inhalator</li> <li>Change cartridge frequently</li> <li>Use regularly</li> </ul>	<ul style="list-style-type: none"> <li>Spray as required</li> <li>Use regularly</li> </ul>
Advantages	Easy to use. 24 hour patch can ease cravings	Easy to regulate dose. Different flavours available	Easy to regulate dose	Discreet, easy to regulate dose	Maintains hand to mouth action. Trial size available	Provides fast relief mimicking 7 second hit of cigarette
Disadvantages	May irritate application site. 24 hour patch may cause nightmares	Must be used correctly. Avoid with denture users.	Must be used correctly. May cause mouth irritation / indigestion	Must be used correctly. May cause mouth irritation / indigestion	Doesn't break hand to mouth action	May cause nasal irritation Avoid in sinusitis sufferers
Main brands available	16 hour - Nicorette 24 hour - NiQuitin CQ / Nicotinell	Nicotinell Nicorette NiQuitin CQ	Nicotinell NiQuitin CQ	Nicorette	Nicorette	Nicorette

\* suggested length of course by MSCS, see BNF for specific brand information for recommended length of course

References used in the compilation of this guidance: British National Formulary no. 47, March 2004.  
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If your client is able to use it, NRT has been found to double their chances of success.

Intervention	% of all smokers making an attempt to stop who will still be abstinent after 12 months
Tries to stop using willpower alone	3
Tries to stop using self-help materials (e.g. audiotapes, videos, booklets)	4
Tries to stop using NRT bought from a pharmacy	6
Tries to stop with the help of a smokers' clinic but without NRT	10
Tries to stop with the help of a smokers' clinic & NRT bought from a pharmacy	20

(from Thorax - Smoking cessation guidelines and their cost effectiveness. Dec. 1998, vol. 53)

All NRT products are available from the following places:

-  on prescription from GPs, health visitors and other prescribers
-  at prescription price on vouchers from Specialist Stop Smoking Advisors employed by the service
-  at prescription price from some Manchester pharmacies (list available from the Stop Smoking Service)
-  at retail price from pharmacies

Certain products are also available at retail price from supermarkets. The recommended retail price is currently higher than the cost of a prescription for all products.

According to the manufacturers instructions, NRT should either not be used or used only in caution if any of the following apply: a history of heart problems or stroke, high blood pressure, diabetes, stomach ulcers. This is also true for pregnant or breast feeding women (see below).

However, it is, of course, of particular importance that people with the above stop smoking if possible.

NRT provides a quitter with a third the amount of nicotine than continuing to smoke 20 per day. The nicotine provided is also 'clean' ie it does not also contain the other 3999 chemicals found in cigarette smoke.

NRT is far safer than continued smoking and nearly all health care providers are happy for their patients to use it.

### Pregnant / breastfeeding women and NRT

Many prescribers in Manchester are willing to prescribe NRT for pregnant/breastfeeding women. They believe that the benefits of using NRT (in that it doubles the chances of successful quitting) far outweigh the risks of continuing to smoke. The fetus will get just nicotine, rather than the cocktail of 4000 chemicals breathed in from cigarette smoking, including oxygen-depriving carbon monoxide.

NICE guidelines state that pregnant women should first try to stop smoking without NRT, but that NRT may then be given 'in caution', i.e. in conjunction with behavioural support, following a risk:benefit analysis. See below for more information on smoking and pregnancy, including Good Practice Guidelines.

The 24-hour patch should be the last choice in pregnancy as using any other form of NRT gives the fetus a break from nicotine overnight. Fetal nicotine levels are higher than those in the mother.

For breastfeeding women, oral NRT should be used after a feed has been given (although the level of nicotine in breast milk is only 2% that in the mother).

### Young people and NRT

Some NRT products can be used in caution for use with young people. See BNF for specific brand information.



## (D) Zyban (brand name) aka bupropion hydrochloride SR (150mg)

Zyban or bupropion hydrochloride SR is also used in the US to treat depression. It received a licence for use in smoking cessation in the UK in 2000. It is the first non-nicotine prescription medicine to help people stop smoking and must be prescribed by a GP. GPs may look to others working with smokers to assess a patient's motivation.

Zyban is not currently recommended for use in combination with NRT.

Zyban is only for use in adults aged 18 and over - 150mg daily for the first 7 days, then 150mg twice daily from day 8. A full course lasts 7-9 weeks.

Patients continue to smoke for the first 7 days, while the drug builds up to a steady level in the body. They set a quit date in the second week e.g. day 8.

There are a number of contra-indications to be considered before prescribing Zyban:

It should not be prescribed for patients with:	It should only be used in caution for patients taking/with:
Current/previous seizure disorder/epilepsy	Predisposition to lower seizure threshold eg alcohol abuse, diabetes
Current/previous eating disorder	Antipsychotics
Recent/current treatment with MAOIs	Theophylline
Severe liver disease	Steroids
Bipolar disorder	Antidepressants
Pregnancy/breastfeeding	Susceptibility to psychotic episodes

If client is not suitable for Zyban, consider the use of NRT.