



## Nicotine Replacement Therapy (NRT) for young people 12-17 years of age

### Summary

All nicotine replacement therapy (NRT) products are licensed for use by adults (18 years of age and over) and for young people aged 12 to 17 years of age.

Behavioural support and combination nicotine replacement therapy (patch + faster-acting NRT product) is the recommended treatment for young people who wish to stop smoking. Available evidence suggests that whilst NRT is safe, it is not as effective for young people compared with use by adults. There is evidence that NRT is more effective in young people with greater nicotine dependency.

The Summary of Product Characteristics (SPC) for NRT products generally recommend a treatment duration of 10-12 weeks, extended only in consultation with a physician. All other instructions remain the same as for adults, with a few minor exceptions detailed below.

Note: the terms 'young people' and 'adolescent' in this document both refer to those aged 12-17 years.

### Background

Smoking is a chronic relapsing condition that often starts in childhood and cuts life short. Experimentation is part and parcel of adolescence and, thankfully, most young people do not progress to regular smoking or vaping.

But when young people do start to smoke regularly dependence can quickly develop, and for some this means that they will find it difficult to quit. Support and stop smoking aids will help.

There is good reason to believe that many of the behaviour change techniques that form the basis of NCSCCT guidance on supporting adults to stop smoking would be effective for young people, but their effectiveness has not been directly assessed with young people who smoke.

The latest National Institute for Health and Care Excellence (NICE) guidelines recommend consideration of NRT for young people aged 12 years and over who are smoking and dependent on tobacco. If NRT is prescribed, the guideline recommends offering it with behavioural support (NICE 2021; Recommendation 1.12.3).

### Evidence of effectiveness

Research into the effectiveness of NRT as a stop smoking aid for young people is limited to eight trials (Selph 2023; Lachance 2020; Hartmann-Boyce 2018; Fanshawe 2017; King 2016). Studies have been relatively small and underpowered (i.e. did not have enough subjects to statistically generate reliable conclusions) and have primarily evaluated use of the NRT patch on its own (Selph 2023; LaChance 2020; Hartmann-Boyce 2018; Fanshawe 2017; King 2016).

Overall, studies report mixed results regarding the efficacy of NRT in young people. Available data indicates NRT is less effective as an aid to stopping smoking among young people when compared to adults (Selph 2023; Hartmann-Boyce 2018; Fanshawe 2017; King 2016).

Poor compliance with NRT treatment has been reported among young people and may explain, in part, the mixed results (Fanshawe 2017; Haysom 2017; Scherphof 2014; Scherphof 2014). One trial has shown NRT to be effective only among young people who comply with the full course of treatment (Scherphof 2014). Regular follow-up and support with appropriate use of NRT for the full course of treatment is therefore recommended when working with young people.

Research has found NRT patch effectiveness in addressing withdrawal symptoms in adolescent smokers to be mixed, with two studies showing a reduction in urges to smoke and two showing no effect (Fanshawe 2017). Young people smoke fewer cigarettes on average per day compared to adults who smoke. Given NRT works specifically to reduce withdrawal symptoms and urges to smoke, NRT may not be as effective in those young people for whom these are not significant factors in their continued smoking.

Appropriate assessment of tobacco dependence among young people who smoke can assist with determining the importance of combination NRT as part of the treatment plan. It is expected that the use of combination NRT will be more valuable for those young people with an established dependence than for those who have yet to establish regular smoking patterns or smoke fewer cigarettes per day. Less dependent young people may benefit from a fast-acting product alone as a substitute for smoking; however, more research is required to guide practice.

Behavioural support has been shown to be particularly effective with adolescent tobacco users and as such should always be provided alongside NRT for young people who smoke (Fanshawe 2017; Shirazi 2024).

Many young people report, to a greater extent than adults, that they smoke as a coping behaviour because of social pressure, in order to socialise or for enjoyment (King 2018). Higher rates of smoking are reported among young people with mental health illness and co-addictions. Behavioural support should focus on tailoring support to the needs of adolescent clients (Shirazi 2024).

### Evidence on safety

There is no evidence of serious harm from use of NRT among young people. NRT has a low potential for misuse due to the relatively slow delivery of nicotine. Use of NRT is far safer than continued smoking.

Adverse health effects from the use of nicotine patches are minor and include local skin reactions, headache, nausea/vomiting, tiredness, sleep disturbances, joint/muscle ache and light headedness/dizziness (Fanshawe 2017).

### Summary of Product Characteristics instructions

The SPCs for NRT provide specific instructions for young people aged 12-17 years.

For the most part, the SPCs specify that the length of use is 10-12 weeks and physician guidance should be sought if it is to be used for longer.

The exception to this is the Nicotinell Lozenge products which should not be used by young people 12–17 years of age without prescription. This is not to do with the safety profile, simply that the product hasn't been tested in young people.

The SPC for Nicotinell Gum states that it should not be used as part of combination therapy (i.e. with a nicotine patch) by young people.

Below we provide the SPC instructions for young people aged 12-17 years for each NRT product.

### Product-specific instructions

The *Nicotine Replacement Therapy* section of the NCSCT website includes links to the SPC for each NRT product: <https://www.ncsct.co.uk/publications/category/nrt>

Here we list products that give specific mention of 12-17-year-olds in their SPCs.

#### Nicorette Invisi Patch (all strengths)

As data are limited in this age group the recommended treatment duration is 12 weeks. If longer treatment is required advice from a healthcare professional should be sought.

#### Nicotinell gum (all strengths)

Medical advice should be obtained should it be found necessary to use the gum beyond 12 weeks.

#### Additional information

The Nicotinell Gum SPC, but not any other of their product SPCs, states that: “Adolescents should not quit with a combination NRT Regimen”.

#### Nicotinell patch (all strengths)

As data are limited in this age group, medical advice should be obtained should it be found necessary to use the patch beyond 10 weeks.

#### Nicotinell lozenges (all strengths)

Nicotinell Lozenge products state that they “should not be used by adolescents 12-17 years of age without prescription from a healthcare professional. There is no experience in treating adolescents under the age of 18 with Nicotinell Lozenge.”

#### NiQuitin Mint Lozenge (all strengths)

Should only be used in adolescents (12-17 years) with the advice of a healthcare professional.

#### Additional information

There is no mention of this, or similar statements, in the NiQuitin non-mint flavour lozenge SPCs

#### NiQuitin Minis Mint Lozenge (2mg)

As data are limited, duration of use of NRT in this age group is restricted to 12 weeks. Where adolescents are not ready or able to stop smoking abruptly, advice from a healthcare professional should be sought.

#### NiQuitin Minis Mint Lozenge (4 mg)

As data are limited, duration of use of NRT in this age group is restricted to 12 weeks. Where adolescents are not ready or able to stop smoking abruptly, advice from a healthcare professional should be sought.

#### NiQuitin Minis Lozenge (all strengths)

As data are limited, duration of use of NRT in this age group is restricted to 12 weeks. Where adolescents are not ready or able to stop smoking abruptly, advice from a healthcare professional should be sought.

#### Nicotinell patch

Medical advice should be obtained should it be found necessary to use the patch beyond 10 weeks.

#### Nicorette nasal spray

As data are limited in this age group, the recommended treatment duration is 12 weeks.

#### Boots NicAssist nasal spray

Children and adolescents of 12 to 17 years should not use for longer than 12 weeks without asking for help and advice from a pharmacist, nurse or doctor.

#### Nicorette and Boots NicAssist microtab

As data are limited in this age group, the recommended duration of treatment is 12 weeks.

## Resources

A quick reference table is at the end of this document.

The *Stop smoking aids* section of the NCSCT website includes resources and information for all NRT products, nicotine vapes, cytisine, bupropion and varenicline: <https://www.ncsct.co.uk/publications/topCategory/stop-smoking-aids>

We also have a *Stop smoking medications* module that provides the information needed to be able to give clients accurate, evidence-based advice on stop smoking aids: [https://elearning.ncsct.co.uk/stop\\_smoking\\_medications-launch](https://elearning.ncsct.co.uk/stop_smoking_medications-launch)

The *Stop smoking aids quick reference sheet* has been written by experts in the field to support stop smoking practitioners with the task of helping clients to choose the best medication for them: <https://www.ncsct.co.uk/publications/stop-smoking-medications-quick-reference>

## Conclusion

There is limited evidence on the effectiveness of NRT among young people. Available evidence is mixed in terms of its value as a stop smoking aid in this group. Overall, research indicates NRT is less effective as a stop smoking aid in young people when compared to adults and may primarily benefit young people who have greater tobacco dependence. Further research is needed to guide practice.

There is no evidence that NRT use in young people is unsafe and any adverse reactions are generally mild.

Based on available evidence, the use of combination NRT (nicotine patch + faster acting nicotine product) is recommended in young people (12 -17 years) who have moderate to high tobacco dependence.

As is the case with adults, it is important to ensure young people are treated with sufficient nicotine from NRT products to prevent withdrawal symptoms and urges to smoke. Given that NRT delivers significantly less nicotine to users than smoking cigarettes, there is no need for practitioners to be overly concerned about risk of overdose in young people who smoke 10 or more cigarettes per day. Even if young people do get more nicotine from NRT than from when they were smoking, they will just feel nauseous and they can pause their NRT use for a few hours and then restart at a lower dose.

NRT, combined with behavioural support, is currently the best available intervention for stopping smoking in adolescents and can offer young people a way out of smoking with huge individual health benefits. Behavioural support may play a more important role with young people than adults when quitting and this should be emphasized as part of treatment.

## Quick reference

<b>Medication name</b>	<b>Age and recommendations for licensed use</b>
<b>Bupropion</b>	18 and over
<b>Cytisine</b>	18 and over
<b>Nicotine GUM</b>	
<b>Nicorette products</b>	
Nicorette 2mg gum	12 and over
Nicorette 4mg gum	12 and over
Nicorette Fruit Fusion 2mg Gum	12 and over
Nicorette Fruit Fusion 4mg Gum	12 and over
Nicorette Freshmint 2mg Gum	12 and over
Nicorette Freshmint 4mg Gum	12 and over
Nicorette Icy White 2mg Gum	12 and over
Nicorette Icy White 4mg Gum	12 and over
<b>Nicotinell products</b>	
Nicotinell Mint 2mg Medicated Gum	12 and over (up to 12 weeks and not in combination with patch)
Nicotinell Mint 4mg Medicated Gum	12 and over (up to 12 weeks and not in combination with patch)
Nicotinell Fruit 2mg Medicated Gum	12 and over (up to 12 weeks and not in combination with patch)
Nicotinell Fruit 4mg Medicated Gum	12 and over (up to 12 weeks and not in combination with patch)
<b>NiQuitin products</b>	
NiQuitin Extra Fresh Mint 2mg Medicated Chewing Gum	12 and over
NiQuitin Extra Fresh Mint 4mg Medicated Chewing Gum	12 and over
NiQuitin Fresh Mint 4mg Medicated Chewing Gums	12 and over
<b>Nicotine PATCH</b>	
<b>Nicorette products</b>	
Nicorette Invisi 10mg Patch	12 and over (advice needed for use beyond 12 weeks)
Nicorette Invisi 15mg Patch	12 and over (advice needed for use beyond 12 weeks)
Nicorette Invisi 25mg Patch	12 and over (advice needed for use beyond 12 weeks)



<b>Nicotinell products</b>	
Nicotinell TTS 10 (7mg)	12 and over (advice needed for use beyond 10 weeks)
Nicotinell TTS 20 (14mg)	12 and over (advice needed for use beyond 10 weeks)
Nicotinell TTS 30 (21mg)	12 and over (advice needed for use beyond 10 weeks)
<b>NiQuitin products</b>	
NiQuitin Clear 7mg Transdermal Patch	12 and over
NiQuitin Clear 14mg Transdermal Patch	12 and over
NiQuitin Clear 21mg and Pre-Quit 21mg Transdermal Patches	12 and over
NiQuitin 7mg Transdermal Patch	12 and over
NiQuitin 14mg Transdermal Patch	12 and over
NiQuitin 21mg Transdermal Patch	12 and over
<b>Nicotine INHALATOR</b>	
<b>Nicorette products</b>	
Nicorette Inhalator 15mg	12 and over
<b>Boots NicAssist products</b>	
Boots NicAssist Inhalator 15mg	12 and over
<b>Nicotine NASAL SPRAY</b>	
<b>Nicorette products</b>	
Nicorette Nasal Spray	12 and over (up to 12 weeks)
<b>Boots products</b>	
Boots NicAssist Nasal Spray	12 and over (advice needed for use beyond 12 weeks)
<b>Nicotine MOUTH SPRAY</b>	
<b>Nicorette products</b>	
QuickMist Mouth Spray 1mg	12 and over
QuickMist Cool Berry Mouth Spray 1mg	12 and over
<b>Boots products</b>	
NicAssist Mouth Spray 1mg	12 and over (help and advice needed from nurse, pharmacist or doctor for use beyond 12 weeks)
<b>Nicotine MICROTAB</b>	
<b>Nicorette products</b>	
Nicorette 2mg Microtab	12 and over (up to 12 weeks)

<b>Boots products</b>	
Boots NicAssist 2mg Microtab	12 and over (up to 12 weeks)
<b>Nicotine LOZENGE</b>	
<b>Nicorette products</b>	
Nicorette Cools 2mg Lozenge	12 and over
Nicorette Cools 4mg Lozenge	12 and over
Nicorette Fruit 2mg Lozenge	12 and over
<b>Nicotinell products</b>	
Nicotinell Mint 1mg Lozenge	12 and over (prescription only)
Nicotinell Mint 2mg Lozenge	12 and over (prescription only)
<b>NiQuitin products</b>	
NiQuitin 2mg Lozenges	12 and over
NiQuitin 4mg Lozenges	12 and over
NiQuitin Mint 2mg Lozenges	12 and over (with advice)
NiQuitin Mint 4mg Lozenges	12 and over (with advice)
NiQuitin Minis 2mg Lozenges	12 and over (with advice)
NiQuitin Minis 4mg Lozenges	12 and over (with advice)
NiQuitin Minis Mint 2mg Lozenges	12 and over (with advice)
NiQuitin Minis Mint 4mg Lozenges	12 and over (with advice)
<b>Varenicline</b>	18 and over

## Sources

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