

A guide to teenage immunisations

between 12 and 18 years of age

2013 Edition



This resource is available in Urdu, Chinese and Polish, and in an Easy Read format. NHS Health Scotland is happy to consider requests for other languages and formats. Please contact 0131 536 5500 or email nhs.healthscotland-alternativeformats@nhs.net

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Introduction

This guide is for young people aged 12 to 18, and their parents or guardians.

Which immunisations are offered to young people in secondary school?

In S2 all girls will be offered the HPV vaccine (see page 13).

In S3 all young people will be offered the following:

- tetanus, diphtheria and polio (Td/IPV, see page 7)
- MenC (see page 9).
- Measles, mumps and rubella (MMR) – if they were not fully protected against MMR as a child then they will be offered the MMR vaccine (see page 15).

Young people with medical conditions will also be offered flu and pneumococcal immunisations at their GP practice (see pages 17 and 18).

If you have any questions, talk to your GP, school nurse or the practice nurse at your GP surgery. You can also visit www.immunisationscotland.org.uk or call the NHS inform helpline on **0800 22 44 88** (textphone 18001 0800 22 44 88). The helpline is open every day 8 am to 10 pm and also provides an interpreting service.

Common questions about immunisations

What is immunisation?

Immunisation is the act of giving a vaccine, usually by injection, to encourage your body's immune system to produce antibodies that will fight off a virus or bacteria. It may also be referred to as vaccination.

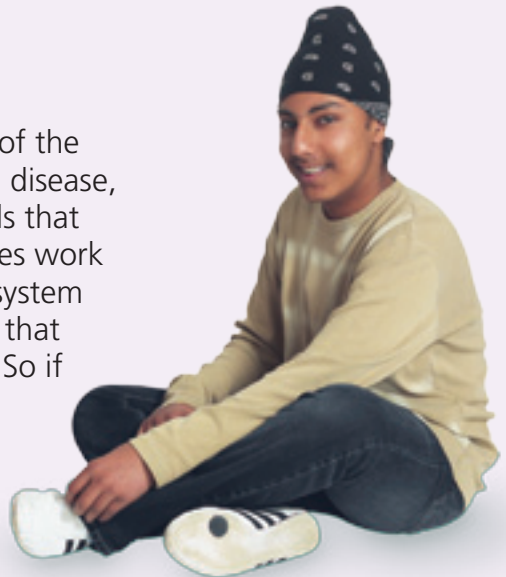
Why do we need immunisation?

The national immunisation programme has meant that dangerous diseases such as polio have disappeared in the UK. But these diseases could come back – they are still present in many countries throughout the world. In the UK, diseases are kept at bay by the high immunisation rate.

That's why it's so important for you to protect yourself. If you think you might have missed any immunisations, it is never too late to catch up. Speak to your school nurse or GP.

How do vaccines work?

A vaccine contains a small part of the bacterium or virus that causes a disease, or tiny amounts of the chemicals that the bacterium produces. Vaccines work by causing the body's immune system to make antibodies (substances that fight off infection and disease). So if you come into contact with the infection, the antibodies will recognise it and protect you.



What about giving consent?

You should have been given a consent form with this leaflet. You and your parent/guardian should discuss the information in this leaflet before agreeing to have the immunisation. Your parent/guardian is being asked to sign the consent form if you are under 16 years of age.

Parental agreement is always advised, but you can give consent for yourself if you are able to understand what is being offered. If you, or your parent/guardian, have any questions about having the immunisation please speak to your nurse or GP.

For more information about consent and young people, visit www.hris.org.uk/patient-information/#2

Are there any reasons why I should not be immunised?

There are very few young people who cannot be immunised.

You should not have some vaccines if you have had:

- a confirmed anaphylactic reaction (serious allergy) to a previous vaccine
- a confirmed anaphylactic reaction to neomycin, streptomycin or polymyxin B (antibiotics that may be added to vaccines in very tiny amounts).

Before getting the MMR vaccine, young people who:

- are immunosuppressed because they are having treatment for a serious condition, such as a transplant or cancer
- have a condition that affects their immune system, such as severe primary immunodeficiency
- are pregnant

should talk to their GP or nurse. There are no other medical reasons why these vaccines should not be given. If you are worried, talk to the nurse your GP.

Individuals with a confirmed history of egg allergy can receive the MMR vaccine.

What if I am ill on the day of the appointment?

If you have a minor illness without a fever, such as a cold, you should still have the immunisation. If you are ill with a fever, delay the immunisation until you have recovered.

This is to avoid the fever being wrongly associated with the vaccine, and the vaccine increasing the fever you already have.

If you have a bleeding disorder, tell the nurse so that they can give the injection in a slightly different way that will be better for you.

How will I be given the vaccines?

You will have an injection in your upper arm. The needles used are small and you should feel only a tiny pinprick. If you are a bit nervous about having the injection, tell the nurse or doctor before you have it.

Are there any side effects?

It is common to get some swelling, redness or tenderness where you have the injection. Sometimes a small painless lump develops, but this usually disappears in a few weeks. More serious effects are rare but include fever, headache, dizziness, feeling sick and swollen glands.

Very rarely, some people can have a severe reaction soon after immunisation, which causes breathing difficulties and may cause them to collapse. This is called an anaphylactic reaction. These reactions are extremely rare and nurses are fully trained to deal with them.

If you feel unwell after the immunisation, take paracetamol or ibuprofen. Read the instructions on the bottle/packet carefully and take the correct dose for your age. If necessary, take a second dose four to six hours later.

It is not recommended that you take these medicines in anticipation of, or to prevent, a fever.

A few people experience mild side effects from the MMR vaccine. Side effects of MMR may be:

- A mild rash (this rash is not infectious) or fever that develops a week or two after the vaccine and lasts one to three days
- swollen lymph glands that develop two to three weeks later
- sore or stiff joints that can last from a couple of days to a few weeks.

These side effects will pass in a short time.

Only on very rare occasions can MMR cause serious side effects, and the numbers are small compared to the side effects caused by the real illnesses. For example, a young person with measles who has not had the vaccine has a 1 in 1000 chance of developing encephalitis (inflammation of the brain). The chance of developing encephalitis after the first dose of MMR is less than 1 in 1 million.

If you are worried, speak to your GP or call **NHS 24** on **08454 24 24 24**. If you are still worried after getting advice from your GP or NHS 24, trust your instincts and go to the emergency department of your nearest hospital.

Tetanus, diphtheria and polio (Td/IPV) vaccine

The Td/IPV vaccine protects against three different diseases: tetanus, diphtheria and polio.

What is tetanus?

Tetanus is a painful disease affecting the nervous system which can lead to muscle spasms, cause breathing problems and can also kill. It is caused when germs found in the soil and manure get into the body through open cuts or burns. Tetanus cannot be passed from person to person.

What is diphtheria?

Diphtheria is a serious disease that usually begins with a sore throat and can quickly cause breathing problems. It can damage the heart and nervous system, and in severe cases, it can kill. Before the diphtheria vaccine was introduced in the UK, there were up to 70,000 cases of diphtheria a year, causing around 5,000 deaths.

What is polio?

Polio is a virus that attacks the nervous system, which can cause permanent paralysis of the muscles. If it affects the chest muscles or the brain, polio can kill. Before the polio vaccine was introduced, there were as many as 8,000 cases of polio in the UK in epidemic years.

If I was immunised against tetanus, diphtheria and polio as a child, am I still protected?

You may still have some protection, but you need this booster to complete your routine immunisations and give you longer term protection.

How many boosters do I need to have?

You need a total of five doses of tetanus, diphtheria and polio vaccines to build up and keep your immunity. You should have had:

- the first three doses as a baby
- the fourth dose, when you were aged from three years four months, before you started school

The fifth dose is due in S3.

If you think you may have missed any of your doses, or any of your other immunisations, talk to the school nurse or your GP.



MenC

What is MenC?

MenC (meningococcal group C bacteria) can cause meningitis (an infection of the lining of the brain) and septicaemia (blood poisoning). Meningitis and septicaemia are both very serious – they can cause permanent disability and death and the symptoms can come on quickly – so you must get treatment straight away. After babies, young people are particularly vulnerable to meningococcal infection.

How to protect yourself against MenC

To be fully protected against MenC you need separate doses of the MenC vaccine as a baby as well as a booster dose as a teenager. The booster dose increases protection against MenC and is given in S3 at the same time as the Td/IPV booster.

Research has shown that the length of protection against MenC is increased when a dose of the vaccine is given in the early teenage years. This is why, from 2013, all young people will be offered a MenC booster vaccine as part of their routine immunisations in S3.

This vaccine only protects against one type of meningitis and septicaemia, so you still need to know the signs and symptoms (see pages 10 and 11).

Knowing about meningitis and septicaemia

Meningitis is an infection of the lining of the brain. The same germs that cause meningitis can cause septicaemia. Septicaemia (another name for blood poisoning) refers to a bacterial infection of the blood. The MenC vaccine only protects against one type of meningitis and septicaemia, so you still need to know the signs and symptoms.

What do I look for?

Early symptoms of meningitis and septicaemia are mild and similar to those you get with flu (such as feeling hot, being sick, and pain in the back or joints).

However, for **meningitis**, the most important signs to look out for are:

- a stiff neck
- a very bad headache (this alone is not a reason to get medical help)
- lights hurting your eyes
- vomiting
- a fever
- feeling drowsy, less responsive or confused
- seizures
- red or purple spots that don't fade under pressure (do the 'glass test' explained on page 12).

For **septicaemia**, the most important signs to look out for are:

- feeling sleepy, less responsive or confused (a late sign in septicaemia)
- severe pains and aches in the arms, legs and joints
- very cold hands and feet
- shivering
- rapid breathing
- red or purple spots that don't fade under pressure (do the 'glass test' explained on page 12)
- vomiting
- a fever
- diarrhoea and stomach pain.

What should I do?

If you have symptoms like those listed above, get medical help urgently. If you get treatment for meningitis and septicaemia quickly, you stand the best chance of making a full recovery.

If you are worried, speak to your GP or call NHS 24 on 08454 24 24 24. If you are still worried after getting advice from your GP or NHS 24, trust your instincts and go to the emergency department of your nearest hospital.

The 'glass test'

Press the side of a clear drinking glass firmly against the rash so you can see if the rash fades and loses colour under pressure. If it doesn't change colour, contact your GP immediately.

The spots and rash are more difficult to see on darker skin, so check paler areas such as the palms of the hands, soles of the feet and the area around the eye. Spots or rashes may fade at first, so to be sure – keep checking.

Be aware, however, that the rash does not always appear.



The following organisations provide information on meningitis:

Meningitis Trust

24-hour helpline: 0808 80 10 388

www.meningitis-trust.org

Meningitis Research Foundation

Freephone helpline: 080 8800 3344

Open 9 am to 10 pm Monday–Friday and 10 am to 8 pm on weekends and bank holidays.

www.meningitis.org

Meningitis Association Scotland

Phone or fax: 0141 554 6680

www.menscot.org

Human papillomavirus (HPV) vaccine

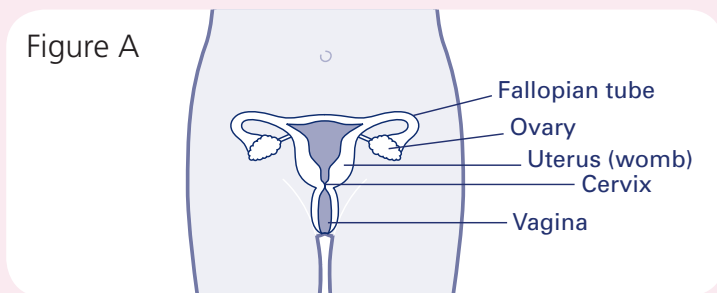
What is the HPV (cervical cancer) vaccine?

Cervical cancer develops in the cervix, the entrance to the uterus (womb, see Figure A below). It is caused by a virus called the human papillomavirus (HPV).

The HPV vaccine is offered to all girls in Scotland in S2 (when they are between 12 and 13 years old) because this is the most effective time to get it. Three doses of the HPV vaccine provide you with the best protection against cervical cancer.

If you missed any, or all, of these doses, please contact your school nurse to find out how you can be immunised.

In the UK, around 1,000 women die from cervical cancer each year.



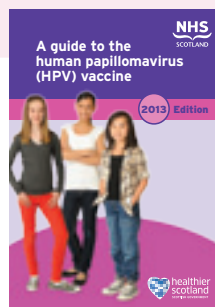
The vaccine protects against the two types of HPV that cause 75% of cervical cancer, as well as two other types of HPV that cause about 90% of the cases of genital warts.

You cannot get the HPV infection from the vaccine.

The vaccine does not protect you against all other types of HPV, so you will still need to start going for regular cervical screening (smear tests) when you reach the appropriate age. **This combination of immunisation and cervical screening offers the best possible protection against cervical cancer.**

For more advice or information about HPV, speak to your GP, practice nurse or school nurse, or read the guide to the HPV vaccine (pictured opposite). This information is also available at:

www.immunisationscotland.org.uk/hpv



Measles, mumps and rubella (MMR)

Why it's important that you are protected against measles, mumps and rubella

It is important that all young people have had two doses of the MMR vaccine to fully protect them against measles, mumps and rubella. It is never too late to be immunised.

Measles is highly infectious and can be a dangerous illness. A cough or sneeze can spread the measles virus over a wide area. **Measles spreads easily in schools and other places where young people gather together.**

What are measles, mumps and rubella?

Measles is a very infectious virus that causes a fever, cough and rash. It can spread easily and cause serious complications, such as pneumonia and encephalitis (inflammation of the brain). It lasts for several days and, even if there are no serious complications, it is unpleasant.

Mumps causes fever and painful, swollen glands in the face and neck. Mumps is spread in the same way as measles and can cause a mild form of meningitis.

Rubella (German measles) causes a rash and fever, and is usually a very mild illness. However, if caught in pregnancy it can cause serious damage to an unborn child.

How to protect yourself against measles, mumps and rubella

To be fully protected against measles, mumps and rubella you need **two separate doses** of the MMR vaccine. You should have received two doses of the MMR vaccine, the first dose between 12 and 13 months and another before starting school.

If you haven't had both doses yet, you may still be at risk. If you haven't previously had two doses of the MMR vaccine, you will have another opportunity to get it at school. If this is your first dose, a second dose will increase protection and should be given a month after the first dose. The nurse will advise you on how to arrange this.

What is the MMR vaccine and is it effective?

The MMR vaccine contains weakened versions of live measles, mumps and rubella viruses. Because the viruses are weakened, they do not cause the illnesses. Young people who have recently had the vaccine cannot infect other people.

The MMR vaccine is highly effective and has been shown to be very safe. It has been responsible for protecting Scottish children and young people from these three illnesses since it was introduced in 1988.

For more advice on immunisation, speak to your GP, practice nurse or school nurse. This information is also available at: www.immunisationscotland.org.uk

Seasonal flu

What is influenza (flu)?

Flu is a virus that can cause chills, fever and a sore throat. The virus can also cause headaches, coughing, sneezing and extreme tiredness. If you have a long-term health condition, flu will hit you harder. If you fall into one of the following categories, you are eligible for a free flu immunisation every year from your GP (not your school):

- chronic respiratory disease
- chronic heart disease
- chronic kidney disease
- chronic liver disease
- chronic neurological disease
- diabetes
- immunosuppression
- pregnancy.

Flu viruses continually change, so last year's vaccine might not necessarily protect you against any new strains. If you had a flu vaccine last year, you will need another one this year. The annual flu vaccine will protect against the main influenza strains that are likely to be circulating during the next winter flu season.

There are now two types of flu vaccine (an injection and a nasal spray). Your GP will advise you on which type is most suitable for you.

Pneumococcal vaccine

Pneumococcal bacteria can cause serious illness, such as pneumonia and meningitis. Pneumococcal polysaccharide vaccine (PPV) is recommended for certain groups of people who are at greater risk of infection as a result of health problems. This includes people with ongoing lung, heart, kidney or liver problems, and people with lowered immunity, diabetes or cochlear implants. Ask your GP or practice nurse for more information if you think you may need this vaccine.



Going abroad?

If you are going abroad, make sure your routine immunisations are up to date. You may also need extra immunisations.

Contact your GP surgery or a travel clinic well in advance (at least eight weeks) for up-to-date information on the immunisations you may need. Information can also be found on the NHSScotland website, at **www.fitfortravel.nhs.uk**

Courses of most travel vaccines can be given over a four-week period, but more time will be needed if a course of the Td/IPV vaccine has to be given.

If you find that you have less time before departure, it is still worth attending a clinic to make sure you get as much protection as possible, as well as information about reducing the risks of ill health abroad. You may need to be immunised against other diseases, such as yellow fever, and have a certificate as proof of being immunised before you can enter some countries. The yellow fever certificate becomes valid and effective 10 days after the primary immunisation is given.

For more information

If you are going on holiday to Europe you should apply for a free European Health Insurance Card (EHIC), which offers you access to reduced cost medical treatment. Apply online at **www.ehic.org.uk**

You can also get further health information on the NHSScotland website **www.fitfortravel.nhs.uk** and the Department of Health Choices website **www.nhs.uk/livewell/travelhealth**

Glossary of terms

This glossary describes some of the terms used in this leaflet.

Anaphylactic reaction

An immediate and severe allergic reaction, which needs urgent medical attention.

Antibodies

Antibodies are proteins in the blood produced by your immune system to fight against bacteria, viruses and disease.

Bacterium

A type of micro-organism that may cause infectious disease.

Cervical cancer

Cervical cancer is a cancer found in the entrance of the uterus (womb). Cancer is caused by the body's cells becoming abnormal and starting to reproduce in an uncontrollable way. These cells can then invade and destroy healthy tissue.

Cervical screening

During a cervical screening test (commonly known as a smear test), a sample of cells from a woman's cervix is taken and examined for abnormalities, which can then be treated if necessary.

Cervix

The cervix is the entrance at the lower end of the uterus (womb) that connects the womb with the vagina.

Consent

Consent is a formal term for giving permission or agreeing to something.

Epidemic

An epidemic is when a disease affects a lot of people in an area.

HPV

HPV stands for human papillomavirus, a common virus that can cause cervical cancer.

Immune system

The immune system is your body's defence system, which helps protect it from disease, bacteria and viruses.

Immunisation

Immunisation is the act of giving a vaccine, usually by injection, to encourage your body's immune system to produce antibodies that will fight off a virus or bacteria. It may also be referred to as vaccination.

Immunodeficiency

A medical condition that affects a person's immune system and means that they are unable to fight off most infections.

Immunosuppressed

People who are unable to fight off most infections because they are having treatment for a serious condition, such as a transplant or cancer.

Immunity

Immunity is the response generated by the body to defend itself against infection and other damaging hazards. Immunisation encourages your body's immune system to develop antibodies, an essential part of the immune response.

Inactivated polio vaccine (IPV)

Polio vaccine made from viruses that have been killed.

MenC

A vaccine that protects against meningococcal C infections.

Neomycin

An antibiotic put into vaccines to prevent contamination by bacteria.

Polymyxin B

An antibiotic put into vaccines to prevent contamination by bacteria.

Streptomycin

An antibiotic put into vaccines to prevent contamination by bacteria.

Virus

A virus is a small micro-organism that can cause an infection. Different viruses can be passed between people in different ways.

This publication is available online at **www.healthscotland.com** or telephone **0131 536 5500**.

Traditional Chinese

您也可以登入 **www.healthscotland.com**
瀏覽本刊物，或撥打 **0131 536 5500** 查詢。

Polish

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Urdu

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یا کسی سوالات کے لیے **0131 536 5500** پر ٹیلی فون کریں۔

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Routine Childhood Immunisation Programme

All immunisations are given as a single injection into the muscle of the thigh or upper arm, except rotavirus, which is given by mouth (orally).

When to immunise	Diseases protected against	Vaccine given
2 months old	<ul style="list-style-type: none"> Diphtheria, tetanus, pertussis (whooping cough), polio and Haemophilus influenzae type b (Hib) 	<ul style="list-style-type: none"> DTaP/IPV/Hib
	<ul style="list-style-type: none"> Pneumococcal disease 	<ul style="list-style-type: none"> PCV
	<ul style="list-style-type: none"> Rotavirus 	<ul style="list-style-type: none"> Rotavirus vaccine
3 months old	<ul style="list-style-type: none"> Diphtheria, tetanus, pertussis, polio and Hib 	<ul style="list-style-type: none"> DTaP/IPV/Hib
	<ul style="list-style-type: none"> Meningococcal group C disease (MenC) 	<ul style="list-style-type: none"> MenC
	<ul style="list-style-type: none"> Rotavirus 	<ul style="list-style-type: none"> Rotavirus vaccine
4 months old	<ul style="list-style-type: none"> Diphtheria, tetanus, pertussis, polio and Hib 	<ul style="list-style-type: none"> DTaP/IPV/Hib
	<ul style="list-style-type: none"> Pneumococcal disease 	<ul style="list-style-type: none"> PCV
Between 12 and 13 months old – within a month of the first birthday	<ul style="list-style-type: none"> Hib/MenC 	<ul style="list-style-type: none"> Hib/MenC
	<ul style="list-style-type: none"> Pneumococcal disease 	<ul style="list-style-type: none"> PCV
	<ul style="list-style-type: none"> Measles, mumps and rubella (German measles) 	<ul style="list-style-type: none"> MMR
3 years 4 months old or soon after	<ul style="list-style-type: none"> Diphtheria, tetanus, pertussis and polio 	<ul style="list-style-type: none"> dTaP/IPV or DTaP/IPV
	<ul style="list-style-type: none"> Measles, mumps and rubella 	<ul style="list-style-type: none"> MMR (check first dose has been given)
Girls aged 12 to 13 years old	<ul style="list-style-type: none"> Cervical cancer caused by human papillomavirus (HPV) types 16 and 18 	<ul style="list-style-type: none"> HPV vaccine
13 to 18 years old	<ul style="list-style-type: none"> Tetanus, diphtheria and polio 	<ul style="list-style-type: none"> Td/IPV, and check MMR status
	<ul style="list-style-type: none"> MenC 	<ul style="list-style-type: none"> MenC