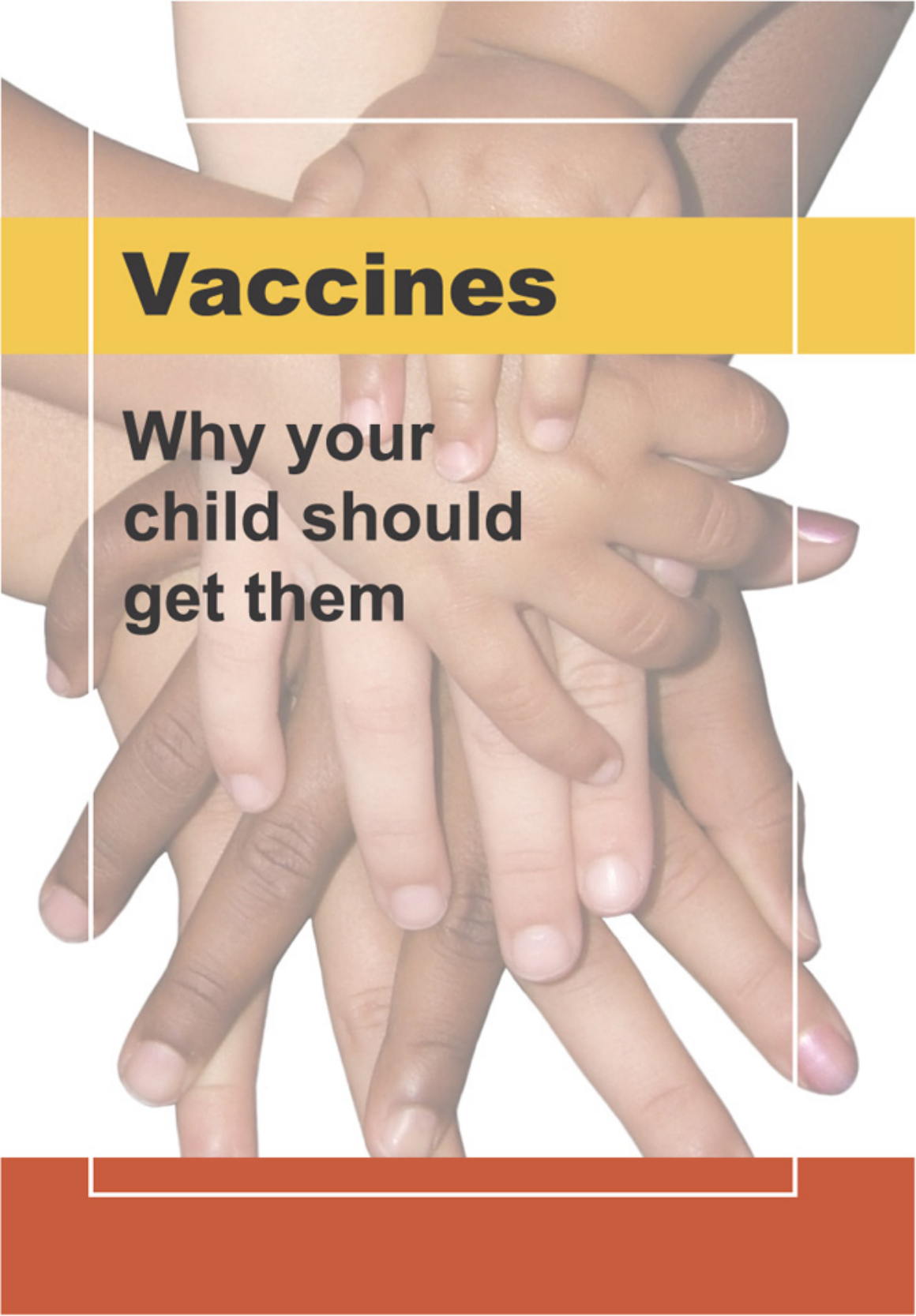

# Vaccines

## Why your child should get them

# Contents




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# Vaccines
# Why your child should get them

**There are lots of things you can do to help keep your children healthy. One way of preventing your children from falling ill from certain infectious diseases is to make sure they receive all of their vaccines.**

## What are vaccines?

Vaccines help protect the body from diseases by improving or creating immunity(protection) to the particular disease in the vaccine given. Vaccines create immunity because when they are introduced into the body, the body recognizes them as foreign agents. It attacks them, destroys them, and then remembers what they were. Therefore, when the body is exposed to the disease in real life the body is able to immediately respond by attacking and destroying the cells and keeping them from multiplying and hence prevent infections.

## Isn't my baby too young for vaccines?

Newborn children get some natural immunity to infections from their mothers in the last three months of pregnancy. However this immunity does not last long and leaves children at risk for many diseases. This is why we need to vaccinate children at an early age. In line with WHO recommendations, the vaccination programme in Malta starts at 6-8 weeks. Premature babies are more at risk than babies born at term and should also receive their vaccines at the same age as full term babies (i.e. 6-8 weeks after they are born) according to the recommended schedule.

## How can I make sure my children get the vaccines they need?

Make sure you are aware of the schedule of vaccination for your child which starts from the age of 6-8 weeks. The immunisation nurse or your doctor will help you with regards to this schedule. It is a good idea to keep a record of all vaccinations given on your child's 'baby book' which includes the vaccination schedule from 6 weeks to 16 years of age.

## Should I worry if my children miss an appointment?

If your child misses an appointment for vaccination, schedule another one as soon as possible. There is no need to start the course of the vaccines again. When you get to the health centre or your doctor, inform them that an appointment was missed, so that your child can be put back in line with the schedule.

## Is there any reason I shouldn't get my children vaccinated?

Vaccines help protect children from infectious diseases but might need to be postponed if your child is acutely ill. Reasons for not vaccinating are rare but it is advisable to check with your doctor.

## Which are the diseases that can be prevented by vaccines?

Children can be protected against those infections for which a vaccine is available. The Health Division recommends all these vaccines for which the majority are offered free of charge as part of the National Immunisation Programme. Vaccines usually protect against one disease but there are preparations available where two or more vaccines are combined together so that the child will need only one injection to protect against more than one disease.

Some vaccines have to be given more than once in order for the child to be sufficiently protected. The interval between the different doses of the same vaccine is there to give enough time for the child to build strong immunity.

# 1) Polio

## What is polio?

Polio is caused by a virus known as the polio virus.

## What can polio do to my child?

**Polio can cause:**

- Infection of the covering of the brain/spinal cord (meningitis).
- Paralysis, usually of the legs.
- Paralysis of the muscles used for breathing.
- Muscle weakness that can come back later in life.
- Lifelong disability.
- In rare cases, polio can cause death.

Polio is now a rare disease because of widespread immunisation. However polio is still present in certain parts of the world so we need to continue to protect our children against it.

## How does it spread?

The polio virus is found in the stool and saliva of infected individuals and is easily spread to hands and objects.

## What about the vaccine?

Polio vaccine has up till now been given as oral drops containing the live polio virus. Three doses given four weeks apart, and two booster doses at 3 and 16 years provide long term protection. Soon the vaccine will be changed to a killed vaccine which will be given as an injection usually in combination with other vaccines. The number of doses and the interval between doses will be the same as for the polio drops.

## 2) Diphtheria

### What is diphtheria?

Diphtheria is caused by bacteria.

### What can diphtheria do to my child?

- It usually starts with a mild fever and a painful throat.
- Diphtheria can then progress to cause airway obstruction, heart damage, kidney damage, nerve damage, muscle weakness, and paralysis.

### How does it spread?

Coughing releases the germs into the air which are then breathed in by a susceptible individual.

### What about the vaccine?

The primary immunisation course consists of three doses of diphtheria-containing vaccine. This is followed by two booster doses. The vaccine is given intramuscularly in combination with other vaccines.

## 3) Tetanus

### What is tetanus?

Tetanus is a bacterial infection that can harm the muscles of the entire body. It is known as “lockjaw” as at the beginning of the illness tetanus causes stiffness of the muscles of the jaw.

### What can tetanus do to my child?

Tetanus causes painful spasms of the muscles and if left untreated can cause death.

### How does it spread?

- The germ that causes tetanus is found in soil and manure.
- Children with open cuts or wounds can get it if they come into contact with tetanus bacteria.

### What about the vaccine?

A primary course of three injections gives good protection for a number of years. The fourth and fifth doses ('boosters') maintain protection. After the fifth dose, immunity remains for life and you do not need any further boosters. The vaccine is given intramuscularly in combination with other vaccines.

## 4) Pertussis

### What is pertussis?

- Pertussis is also caused by bacteria.
- It is known as “whooping cough” from the way the cough sounds.

### What can pertussis do to my child?

**Pertussis can cause:**

- Lung infection (pneumonia) which can result in life-long chest problems.
- Sudden, uncontrollable movements (seizures).
- Permanent brain damage.
- Death.

### How does it spread?

Coughing releases the germs into the air which are then breathed in by an individual at risk.

### What about the vaccine?

The primary course of pertussis vaccination consists of three doses of vaccine with an interval of one month between each dose. The vaccine is given intramuscularly in combination with other vaccines.

***“Whooping cough can give rise to serious complications. Vaccinations can prevent the infection.”***

# 5) Haemophilus influenzae type b (Hib)

## What is Hib?

Hib is a type of bacteria which can cause infection in a number of places in the body.

## What can Hib do to my child?

- Brain infection that can cause hearing loss, learning disabilities, or death (meningitis).
- Lung infection that can make it hard for your child to breathe (pneumonia) and can progress to septicaemia.
- Swelling of the throat that can cause serious breathing problems and sudden complete obstruction of the airway leading to death (epiglottitis).
- Infection of the ear that can cause high temperature and a lot of ear ache (otitis media).

## How does it spread?

- Sneezing.
- Coughing.
- Close contact with people carrying the germ in the throat, but not being ill themselves.

## What about the vaccine?

The primary Hib immunisation course consist of three doses given a month apart. This is usually given in combination with other vaccines and a booster dose is given at 18 months.

# 6) Pneumococcal Disease (PD)

## What is PD?

Pneumococcal disease (PD) is caused by a bacterium.

## What can PD do to my child?

**In some cases, PD can result in sickness or death:**

- Brain infection that can cause hearing loss and brain damage (meningitis).
- Blood infection that can cause serious skin, bone, and joint infections (septicaemia).
- Lung infection that can make it hard for your child to breathe (pneumonia).
- Ear infections (other media).

## How does it spread?

- Sneezing.
- Coughing.
- Close contact with people carrying the germ in the throat, but not being ill themselves.

## What about the vaccine?

The vaccine is given to children between the age of 6 weeks and 5 years with the number of doses given according to the age of the child at first dose.

## 7) Hepatitis

### What is hepatitis B?

Hepatitis B is a virus that causes liver disease.

### What can hepatitis B do to my child?

**Symptoms of hepatitis B include:**

- Stomach pain, loss of appetite, nausea and vomiting.
- Yellowing of the skin and the white of the eyes (jaundice).
- Many times no symptoms are observed but the risk of serious liver problems and liver cancer increases.

### How does it spread?

- Hepatitis B can be spread through contact with blood or other body fluids.
- A pregnant mother can pass on hepatitis B to her baby.

### What about the vaccine?

Three doses of the vaccine are needed for full protection. The second dose is usually given one month after the first dose. The third dose is given five months after the second dose.

## 8) Measles

### What is measles?

- Measles is caused by a virus.
- It starts like a cold with fever, cough, and a stuffy or runny nose and watery eyes. A few days later, a rash appears over the face and body.

### What can measles do to my child?

**Measles can cause severe illness and death through:**

- Brain swelling (encephalitis).
- Lung infection (pneumonia).
- A rare disabling brain disease that can occur even years after infection.

### How does it spread?

- Sneezing and coughing.
- Measles is highly infectious and an unprotected child is very likely to become ill if exposed to the illness.

## 9) Mumps

### What is mumps?

- Mumps is caused by a virus.
- Infection with the mumps virus results in fever, headache, and a painful swelling around the lower part of one or both ears.

### What can mumps do to my child?

**Mumps can cause serious health problems like:**

- Hearing loss.
- Infection of the covering of the brain/spinal cord (meningitis).
- Inflammation of the heart, kidneys, and/or joints.
- Inflammation of the testicles or ovaries in older children which can result in fertility problems.

### How does it spread?

- Sneezing and coughing.

## 10) Rubella

### What is rubella?

- Rubella is caused by a virus.
- It is commonly referred to as "German measles."

### What can rubella do to my child?

- Rubella is usually a mild disease in children and can cause a rash, sore throat and swollen glands.
- Rubella can rarely cause chronic joint problems in older children.
- Serious problems are more common among adults.
- Rubella is very serious for unborn babies and can damage hearing, vision, the brain and the heart.

### How does it spread?

- Sneezing and coughing.

### What about the vaccine for Measles, Mumps and Rubella?

The vaccines used to immunise against measles, mumps and rubella are all combined into one injection - the MMR vaccine. Two doses are given - at 15 months and a booster when the child is over 3 years old.

# 11) Varicella ( Chicken Pox)

## What is chicken pox?

Chicken pox is caused by a virus that produces an itchy, blistering rash.

## What can chicken pox do to my child?

- Most cases are mild but can result in ugly skin scars.
- Chicken pox can still cause serious illness or death.
- Serious skin infections can result from infection of the blisters which can then spread in the blood and other parts of the body.

## In rare cases, chicken pox causes:

- Lung infection (pneumonia).
- Brain swelling (encephalitis).

## How does it spread?

- Coughing.
- Sneezing.
- Touching chicken pox blisters.

## What about the vaccine?

Two doses of chickenpox vaccine are sufficient to build immunity. Vaccination can be started when the child is over a year old. The second dose can be given from 3 months after the first dose.

# 12) Influenza (Flu)

## What is influenza?

Influenza, commonly known as "the flu" is caused by a virus. The influenza virus tends to change every season. That is why the influenza vaccine needs to be taken every year.

## What can the flu do to my child?

**The flu can cause:**

- Fever (sometimes high enough to cause seizures), sore throat, headache, cough, muscle aches, loss of appetite, and extreme tiredness.
- Ear infections, croup, stomach ache, vomiting, and diarrhoea.
- Young children are more likely to be hospitalised with the flu than older children.
- In most cases, children get over the flu in less than a week.

## How does it spread?

- Sneezing.
- Coughing.
- From the hands to the mouth, nose or eyes after touching respiratory droplets on an ill person or object.

## What about the vaccine?

Influenza vaccine gives excellent protection against seasonal flu and lasts for one year. It is made from the strain of influenza virus that is expected in the coming winter. Each year this is slightly different so a new vaccine needs to be made every year. Vaccination is recommended in October or November and the vaccine can be given to children over 6 months of age.

# 13) Rotavirus

## What is rotavirus?

As its name implies rotavirus is a virus.

## What can rotavirus do to my child?

- Rotavirus can cause severe diarrhoea, vomiting, fever, stomach pain, and dehydration.
- Among younger children, rotavirus can cause severe illness which results in hospitalisation because of dehydration.

## How does it spread?

Rotavirus is found in the stools of infected children and is easily spread to others from the hands to the mouth and by touching contaminated objects.

## What about the vaccine?

A rotavirus vaccine protects children from rotaviruses, which are the leading cause of severe diarrhoea among infants and young children. It is given as a 2 dose series in infants and children at 6 weeks and at 10 weeks of age.

# 14) Meningitis C

## What is Meningitis C?

This is one of the types of meningitis caused by a bacterium.

## What can meningitis C do to my child?

- Meningitis C causes serious illness including fever, severe headaches, vomiting, seizures and loss of consciousness.
- It causes the lining of the brain to become inflamed and also results in blood poisoning.
- It can result in serious complications like hearing loss, developmental problems, seizures, amputations and even death.

## How does it spread?

- By sneezing, coughing.
- By very close contact especially in crowded closed spaces.
- By close contact with people carrying the germ in the throat, but not being ill themselves.

## What about the vaccine?

This vaccine protects against Group C meningococcus only and not against Group A or B meningococcus. The vaccine is given at 2 and 4 months of age with a booster at 12 months. Children over one year old age are only given one dose.

# 15) HPV

## What is HPV?

- HPV stands for Human Papilloma Virus.
- The vaccine is given to adolescent girls around the time of puberty.

## What can HPV do to my child?

HPV can cause cancer of the cervix in women and genital warts.

Girls become at risk as soon as they start being sexually active. Smear tests should still be carried out even in sexually active vaccinated women as the vaccine does not protect against all forms of cancer of the cervix. Ask your doctor for more advice.

## How does it spread?

HPV spreads by sexual contact.

## What about the vaccine?

Studies have shown that the HPV vaccine is very effective at stopping cancer of the cervix developing. The vaccine has been shown to work better for people who are given the vaccine when they are younger, before they are sexually active, compared to when it is given to adults. However, the HPV vaccine still does not completely protect against HPV infection. It is not a treatment for HPV. Trials have shown that the HPV vaccine is effective against HPV for up to six years.

# Taking the "Ouch" out of vaccinations

The following suggestions can help make getting vaccination be less painful for your child and less stressful for you.

### Stay calm.

Children may be able to sense when you are upset or nervous therefore it is recommended that you try to stay relaxed and calm while you're in the doctor's office or immunisation clinic. If you feel a little nervous, remember to take a few deep breaths.

### Entertain your child.

It is advisable to take a storybook with you to the doctor's office. As the doctor or nurse gives your child a vaccine, read to your child in a soft, soothing voice. If you don't have a book, tell your child a story, make funny faces, or do something else that will keep your child smiling!

### Stay close to your child.

Ask the doctor or nurse if you can hold your child or stroke your child's back during the vaccination. The gentle touch of a loved one may help to keep your child from getting upset.

### Take your time.

If your child is upset after getting vaccinated, let him or her calm down for a few minutes before leaving the office. That way, your child won't be afraid to come see the doctor or immunisation nurse again.

**Prevent • Protect • Immunise**