



A lifetime of specialist care

Royal Brompton & Harefield **NHS**
NHS Foundation Trust

Small ventricular septal defect (VSD)





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This leaflet provides information for parents of children with a small ventricular septal defect (VSD). The leaflet does not replace personal advice from a qualified health professional. Please ask your doctor or nurse specialist if you have any questions.

What is a ventricular septal defect?

A ventricular septal defect (VSD) is a hole in the wall that separates the heart's lower pumping chambers.

The lower pumping chambers are called ventricles. The wall separating the lower pumping chambers is called the ventricular septum. The wall is made of muscle.

Development and size of VSDs

VSD is a congenital heart defect. Congenital means the VSD developed in the womb and the child had the VSD at birth.

Most VSDs occur by chance, with no clear reason for their development. VSDs can be small, moderate or large in size, and a child may have more than one.

Incidence of VSDs

VSD is the most common congenital heart defect in the UK.

About one in 500 children born each year has a VSD.

How VSDs affect the heart

To understand how VSDs affect the heart, it is important to understand how a normal heart works.

A normal heart

The heart is a muscular pump with four chambers. There are two collecting chambers at the top (right and left atrium) and two pumping chambers at the bottom (right and left ventricle).

Between the collecting chambers (atria) and pumping chambers (ventricles), there is a wall (septum), separating the right and left sides of the heart (see diagram on the next page).

How the heart works

Low oxygen blood, known as 'blue blood', flows from the body into the right side of the heart.

The heart pumps the low oxygen blood into the lungs, to pick up oxygen.

The blood returns from the lungs high in oxygen (red blood), and flows into the left side of the heart.

The heart pumps the high oxygen blood around the body.

The blood returns from the body low in oxygen (blue blood), and flows into the right side of the heart.

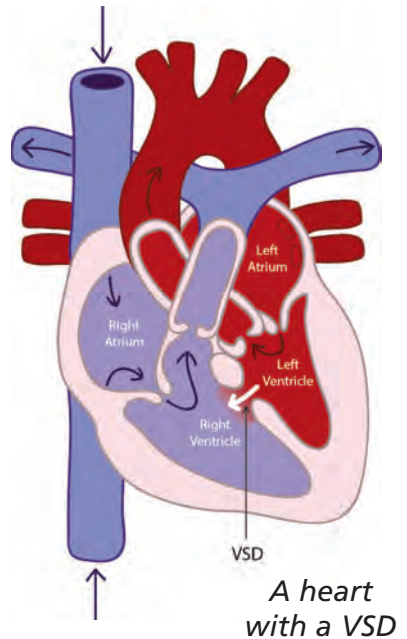
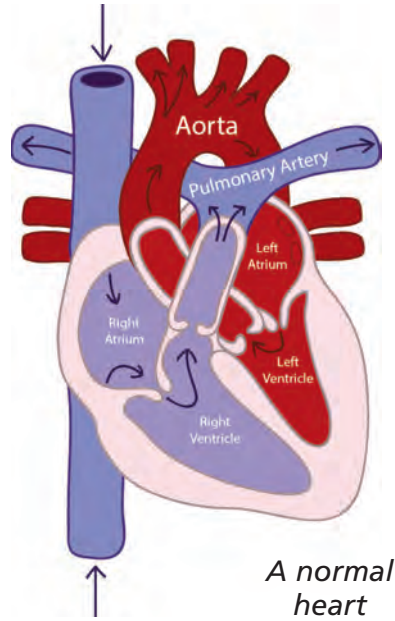
The heart wall (septum) stops the red and blue blood mixing.

A heart with a VSD

A VSD changes the normal flow of blood through the heart. The red blood flows from the left side of the heart into the right side, and mixes with the blue blood (see diagram to the right).

The extra blood in the right side can mean that the heart and lungs have to work harder.

If the VSD is small, there is not much extra blood, so the heart and lungs do not need to work harder.



Diagnosing VSDs

Small VSDs are sometimes diagnosed during pregnancy.

Most VSDs are diagnosed soon after a child's birth, or at the six-week check.

Children with a VSD have a heart murmur. The murmur is an extra or unusual sound made by the heart. Doctors can hear the murmur with a stethoscope.

Heart murmurs are very common. Usually, the heart is working normally, but sometimes the murmur is a sign of a VSD.

If a heart murmur is found, your child will be referred to a cardiologist (a heart doctor) at Royal Brompton Hospital or at a local cardiology clinic.

The cardiologist will listen to your child's heart and lungs, and make other observations.

Your child will also have an echocardiogram (echo). The echocardiogram is a scan that uses sound waves to build up a moving picture of the heart. It is similar to the ultrasound scan used in pregnancy. It takes around 30 minutes.

The echocardiogram helps doctors see if your child has a VSD, and the type of VSD.

Types of VSD

There are two main types of VSD:

- **Muscular** – in the lower part of the septum. Most close by themselves.
- **Perimembranous** – near the heart valves. Some close by themselves.

Your child may have more than one VSD, and the holes may be anywhere along the ventricular septum (heart wall).



Symptoms

Patients with a small VSD do not have any symptoms, and do not usually need treatment.

Most small VSDs get smaller and close by themselves. It can take a few months or years for a hole to close.

Monitoring your child

We will keep a check on your child's health, so we will arrange follow-up appointments with a cardiologist.

Everyday activities with a VSD

Children with small VSDs can lead normal lives. Your child can take part in everyday activities, including sport at school.

Dental care

It is important to take care of your child's teeth. Children with VSDs have an increased risk of an infection called endocarditis.

The infection is caused by germs (bacteria) in the mouth entering the heart lining through the gums and blood stream.

To reduce the risk of infection, gently brush your child's teeth for about two minutes twice a day.

As your child gets older, make sure he/she brushes their teeth properly, and sees a dentist every six months.

Information and support

A cardiologist and clinical nurse specialist (CNS) will explain more about your child's VSD.

Please contact your CNS if you have any worries or questions when you are at home.

Useful contact details

If you need more information, please contact a member of the CNS team.

Royal Brompton CNS team **020 7349 7727**
(Monday to Friday, 9am–5pm)

Harefield – the outpatient sister **01895 828 573**
(Monday to Thursday, 9am–4pm)

You can leave a message and your call will be returned as soon as possible.

British Heart Foundation Helpline: **0300 330 3311**
Website: **www.bhf.org.uk**

If you have any concerns about any aspect of the service you have received in hospital and feel unable to talk to those people responsible for your care, call the Patient Advice and Liaison Service (PALS):

- Royal Brompton Hospital – 020 7349 7715
- Harefield Hospital – 01895 826 572

Alternatively, email pals@rbht.nhs.uk. This is a confidential service.

Royal Brompton Hospital
Sydney Street
London
SW3 6NP
tel: 020 7352 8121
textphone: (18001) 020 7352 8121

Harefield Hospital
Hill End Road
Harefield
Middlesex
UB9 6JH
tel: 01895 823 737
textphone: (18001) 01895 823 737

Website: www.rbht.nhs.uk

إذا كنت ترغب في الحصول على ترجمة فورية لمضمون هذه الوثيقة إلى اللغة العربية، يرجى منك الاتصال بأحد مستخدمينا بجناح المصلحة التي يتم فيها استشفائك. أحد موظفينا سيسعى لترتيب إجراءات الترجمة وإتمامها في الوقت المناسب لك.

Brosurteki bilginin Türkçe tercumesi için tedavi görüyor olduğunuz bölüme bas vurunuz. Bölüm personeli tercumenin gerçekleşmesini en kısa zamanda ayarlayacaktır.

