

Exercise for teenagers with CHD

Whilst we all know it's important to exercise, you might have questions about what kind of exercise you should and can do.

We recommend you always speak to your Cardiologist to gain an understanding of what they believe you are capable of, but in the meantime here is some helpful advice:

1) Is it safe for children and young people with heart conditions to exercise?

Yes. There are very few people who will be advised not to do *any* exercise at all.

Your cardiologist will tell you what you can do and if there is anything you are better to avoid. Everyone is different so you must get *individual* advice about your own heart problem.

2) How much exercise is recommended for children and young people?

Current public health guidelines, which apply to everyone including those people with medical conditions, recommend a daily total of 60 minutes *moderate* intensity physical activity on most (at least 5) days of the week.

This can be done in 10-15 minute periods during the day.

'Moderate intensity' means enough to make you breathe harder (feel a bit 'puffed'), feel warm, but still able to talk.

Everyone should try to do regular physical activity. It may be that you have symptoms, such as breathlessness, from your heart problem that limit the amount of activity you can do, that is okay, just do what you can but at your *own* pace and your own level.

How much you can do depends on your own heart problem and how well your heart functions during exercise; your cardiologist can tell you this.

You may need to think about how much effort you put into your activity; so you may need to take part at a lower level of intensity than your peers for example, and stop to rest at regular intervals.

Most people can do more than they think but you may have to listen to your body and stop to rest when tired.

Being short of breath when you exercise may be because you are unfit and not anything to do with your heart problem.

3) What are the benefits of regular physical activity and exercise?

There is lots of evidence that regular physical activity benefits long-term health, including for those people with congenital heart conditions. The benefits of regular exercise are many but some important ones are:

The heart is a muscle and regular exercise can improve the function of your heart and circulation.

Improves joint flexibility, general mobility and strengthens muscles and bones and reduces risk of osteoarthritis (wear and tear) in later life.

May help lose or control weight and helps reduce 'bad' (LDL) blood cholesterol levels.

Boosts the immune system and improves your feeling of well-being. When you first start an exercise plan you may feel more tired but if you are sensible and build up slowly you will find that over time you feel fitter and then have more stamina and energy to enjoy life.

May help to reduce stress levels and make you feel better about yourself and life in general.

Can help improve concentration.

4) Are there certain types of exercise that are better than others for people with heart conditions?

You may need to think about the *type* of activity that you do, especially if you are very symptom limited, because some activities are better than others for people with heart problems.

There are two basic types of exercise, isotonic and isometric. All activities will have an element of both but there are some important points to think about when choosing an activity. In general, mainly dynamic (isotonic) exercise is preferable to high static (isometric) work.

Isotonic exercise (also called dynamic or cardiovascular).

This type of exercise includes things like walking, swimming, cycling, and dancing.

This type of exercise is generally better for people with congenital heart problems.

Isometric exercise (also called static, weight or resistance work).

This includes exercise often using weights and machines, such as weight-lifting, some gym equipment, and activities like boxing, some martial arts, rowing/canoeing.

Some people *may* be advised against this type of exercise because it can put more of a strain and a 'pressure load' on the heart and blood vessels; others may be able to do some of these activities but at a lower level of intensity.

5) What important points should I know about exercise?

Whatever the activity or exercise it is important to ALWAYS:

Warm Up

Spend 10-15 minutes *gradually* warming up to increase breathing and heart rate.

Never rush or be tempted to miss this part out.

Main Exercise

This should be done at a hard enough rate to make you feel a bit 'puffed' and out of breath, and feel warm or even a bit sweaty (this is called 'moderate' rate).

Remember though to use the **Talk Test**: you should still be able to talk in full sentences all the time you are working at this moderate level.

If you cannot talk then you are working too hard and need to slow down.

If you have enough breath to be able to sing, you are not working hard enough and the exercise will not make you fitter!

Cool Down

This is really important too so always leave 10 minutes to cool down at the end of the exercise session.

Gradually slow your pace down and allow your breathing and heart rate to come back to normal. You can include your stretches for the main muscle groups as you did in the warm up but you can spend longer on the stretches now your muscles are warm.

Other Guidelines

Listen to your body and always stay within YOUR capabilities.

Make sure you know what is advised to do/not to do for YOUR heart condition.

You should aim to do at least 30 minutes exercise most days/at least x5 a week.

Do not become dehydrated - especially if you have a cyanotic/blue heart problem.

Always slow down/stop if you have any dizziness/pain/feel unwell.

6) Are there any activities or exercises people with heart conditions should avoid?

Young people should always ask their cardiologist if there is any activity that they are better to avoid. Everyone is different, and remember heart problems may change over time, so the information people have must be up to date; check with your cardiologist if not sure or before starting a new sport.

Important points to think about:

As a general guide, heavy weight-lifting/body-building or an activity that causes *intense* static muscle work is probably better avoided if you have a heart condition ('intense static' means if you repeatedly need to use lots of effort causing you to hold your breath).

Some heart problems mean you may be advised to avoid high-intensity dynamic activities such as basketball, triathlon, *competitive* level swimming or cycling, distance running, competitive team sports.

If you have symptoms such as dizziness or fainting then avoid water-based activities; horse riding; motor sports; climbing etc where a fall could be very harmful.

If you take anticoagulants such as Warfarin, or if you have a pacemaker, it is better to avoid activities or contact sports with a repeatedly high risk of bodily collision (with people and/or hard surfaces) for example hockey, rugby, football, judo, gymnastic bar work.

If you join a gym make sure you know what equipment/activities are okay for *your* heart condition.

Remember, you do not have to be 'sporty' or join a gym in order to take part in physical activity. Walking or dancing to your favourite music for example is excellent exercise and costs nothing.

If you enjoy sport that is okay, but if you don't it really does not matter, just find another way to keep active doing something you enjoy.

Any activity is better than none at all!

7) What can schools do to help children with heart conditions take part in PE & sports?

Young people should be encouraged to take part in physical activity at school at their own pace and within their own limitations.

This may mean the school making modifications to lesson plans for individual pupils to allow them for example to take part fully in skills and rules teaching sessions, but during strenuous activity finding an alternative for young people (e.g. help with recording or timekeeping duties) to keep them included with their peer group as much as possible.

It is important that schools are provided with up to date information about an individual's heart condition and given detailed guidance for, or limitations to, physical activity; parents can ask their cardiologist or liaison nurse for help with this.

8) What should people with heart conditions do if they have worries about physical activity and exercise?

Always ask their congenital cardiologist and/or their cardiac liaison nurse or congenital cardiac

physiotherapist for *individual* guidance and advice; remember everyone is different and heart conditions may change so always ask about exercise at clinic appointments and ring/email/write if queries come up in between appointments.

9) What symptoms should people with heart conditions be aware of that *should not* occur during exercise?

It is okay and 'normal' to feel warm, breathe harder, look 'flushed' and feel your heart beat faster during exercise.

You should stop to rest if: you feel dizzy or faint; feel unwell in any way; become so breathless you cannot speak; experience pain or discomfort; become very pale and clammy (when you would usually feel warm/hot & a bit sweaty).

Any new or unusual symptoms during, or immediately following, exercise should always prompt you to stop and rest and if they do not get better quite quickly then seek medical advice/report them to your doctor.

10) Are there any guidelines available for physical activity in children and young people with heart conditions?

There are both European and American guidelines which are the consensus opinions of worldwide expert congenital cardiologists. They mainly refer to competitive sports participation but can provide a useful benchmark for reference; they have recently been revisited comparing the different guidelines.

However, it is *essential* that patients always discuss their exercise participation with their own cardiologist.

If you would like to know more about the different types of heart conditions, check out childrens-heart-fed.org.uk.

(Reference: Lynne Kendall Sept 2009, Exercise & Congenital Heart Disease)