

Scoliosis

This leaflet gives you information on scoliosis and what you can do to help manage the symptoms you are experiencing.

What is Scoliosis?

The term scoliosis refers to the abnormal twisting and curvature of the spine. The spine normally looks like a straight line when viewed from behind, but curved like an 'S' from the side.

People with a scoliosis may have a spine that curves in an 'S' or 'C' shape when viewed from behind. This may result in one shoulder being higher than the other, the hips appearing uneven and the body leaning to one side.

A scoliosis can give rise to pain and discomfort by altering the way tissues of your spine are loaded during normal day to day tasks. This can affect any part of the spine from the neck to the middle and lower back. It can be triggered by everyday activities at home or at work, and can come on suddenly or develop over time. Some people may find their pain is constant.

How is a Scoliosis Diagnosed?

A scoliosis is accurately diagnosed from the signs and symptoms you describe, alongside a physical examination. Most people do not need investigations as the diagnosis is made on clinical grounds alone.

What's wrong with me?

There is no known way of preventing a scoliosis from occurring. In most cases the cause is unknown and this is called idiopathic scoliosis. This usually presents in early childhood and usually develops during growth spurts in adolescence.

In adults, age related changes in the discs and joints of the spine and reduced bone density may cause a scoliosis. This is called a degenerative scoliosis. Adults can also experience worsening of a previously undiagnosed scoliosis.

Symptoms can either develop suddenly, or gradually over time without a particular reason. Whether you are able to attribute a specific cause or not, lifestyle factors, stress and the way you use your body are all likely to contribute to your pain.

What are the main symptoms of a Scoliosis?

The symptoms most commonly experienced with a Scoliosis include pain and stiffness in the affected area of your neck or back. The nature of pain can vary from person to person, though it is common that pain comes and goes with certain activities, while it is often described as being achy, sharp or catching.

Although people often associate sharp pains with nerve irritation, these descriptions are not reliable for diagnosing nerve problems, particularly if you do not have any pins and needles or numbness.

On occasions people with mechanical pain may find that they experience pain that extends into a limb. For example, people with neck pain may experience pain in the outer arm, while

people with back pain may experience pain in the back of the thigh. Pain such as this is not necessarily a sign of nerve irritation, as the joints and connective tissue that make up the spine can cause pain to refer into your limbs.

How long will it take to get better?

It is normal that around 80% of the population will experience spinal pain at some point in their life, including those with scoliosis. Usually if left untreated most people will find their pain naturally resolved over a period of six to twelve weeks. If your pain goes on for longer than this then it is likely that there are certain lifestyle, stress and activity factors that are prolonging your problem.

People with scoliosis generally respond quickly to conservative management. However, it can take several months of exercise, pacing and pain medication before you see improvements in your symptoms and function. It is therefore important you perform exercises regularly for this period to see your symptoms improve.

What I can do to help myself get better?

Although a scoliosis can affect your quality of life, it is not serious or dangerous. Your spine is still strong and you should remain as active as possible. Most people can successfully manage their symptoms with simple less risky treatments, called conservative treatment options.

While it is common that people with spinal pain will look for someone to get rid of their pain, it is more effective to find a strategy that allows you to be in control and manage your symptoms. Contrary to common beliefs, manipulations and hands on treatments will not help re-align your spine.

Conservative treatment options

1. Managing pain

Pain medication is usually most effective when combined with an exercise programme. Should you need help with your pain:

- Take mild painkillers such as paracetamol or ibuprofen
- Ask your GP or pharmacist about using a combination of tablets
- Discuss nerve pain modifying drugs with your GP if you have severe nerve pain in your arm, that is referred from your neck

2. Pace yourself

Pacing is a strategy to increase activity without increasing your symptoms. Start by establishing a manageable routine, for example:

At the moment, I can...

Walk for *minutes*

Stand for *minutes*

Lift *kg / lbs from one table to another*

Once you know what you can do, create a plan to increase it. Begin by doing less than you do at present (say 80%), but do this more frequently through the day. Increase this gradually every few days to improve your activity tolerance.

3. Exercise

Exercising may seem daunting, but it is one of the most important elements of managing symptoms. Improving your flexibility, strength and overall level of fitness is important in helping you manage your pain.

There is no evidence that one type of exercise is better than another, however, you should enjoy what you are doing. You may find using a warm heat pack on your neck before exercising, makes the neck feel more comfortable.

It is important to perform your exercises regularly through the day. This will mean that you see results quicker and will feel less stiff through the day.

You may find the exercises uncomfortable at first, this is normal. Use the pacing principles to judge how much exercise you should start with, and to increase your exercise over time. It is better to do a few exercises several times a day rather than all at once.

Example exercises

4. Lifestyle

Lifestyle can significantly impact upon the amount of pain and physical restrictions mechanical pain can cause.

Although it can be difficult to be cheerful or optimistic if you are in pain, it's important to stay positive as this can help you recover faster. Low mood, stress and poor sleep are all known to increase pain by making our nerves more sensitive.

Ensuring that you have a regular sleep pattern, taking steps to reduce stress, such as relaxation and mindfulness can help you to better manage your symptoms.

Being overweight is a risk factor for developing longer term pain. Even if you have mechanical pain, you can still lose weight in the same way everyone else can: by reducing the calories you consume and increasing exercise.

Create a calorie deficit by cutting empty calories from your diet. Reduce the amount of sugar, processed food, saturated fat, fizzy drinks and alcohol you consume. Replace these foods with lean meats, fruit, vegetables, whole grains, nuts and seeds.

Smoking causes the release of harmful chemicals into our bodies that slows healing and makes nerves more sensitive to pain. Smoking also increases the level of stress hormones, which also increases nerve sensitivity. Visit www.smokefreewestsussex.co.uk to find out more about stopping smoking.

5. Posture

Slouched and head forward postures can place extra strain on the neck and back contributing to pain. Take steps to improve your posture by improving your seating position and avoid slouching. It is important that you make sure you have good posture when sitting and standing.

Take regular breaks from your desk, driving or any activity where your neck is held in the same position for a long period of time. Correcting your posture may feel awkward at first because your body has become so used to sitting and standing in a particular way. A firm supporting pillow seems to help some people when sleeping.

Braces are not often used to treat scoliosis in adults. A brace maybe considered as an alternative to surgery if you are not well enough to undergo an operation.

6. Physiotherapy

Physiotherapists are experts in helping people develop self-management strategies and developing exercise routines for individuals with pain and medical problems.

People with mechanical often report hands on physiotherapy treatments reduce their pain in the short-term; however these treatments will not give you a longer term cure.

How can a clinician help?

What about scans?

X-rays can be used confirm the diagnosis of scoliosis, and help to determine the shape, direction location and angle of the curve. However, there is a poor association between these changes and the experience of pain. It is quite common that people who are in pain will have an entirely normal scan.

Individuals with neurological symptoms, such as weakness in the arms may require magnetic resonance imaging (MRI) of the neck, to determine whether there is any nerve irritation.

What is the outlook?

Symptoms can vary considerably from person to person. The outlook is best for those individuals who are not fearful of pain, remain active and undertake positive lifestyle changes to help manage their pain.

Should I be concerned?

Physical complications of having a scoliosis are rare, although serious problems can develop in some people. In very rare cases individuals may report a concerning cluster of symptoms that occur when the nerves in the spinal canal become compressed. If this occurs in the neck or upper back, it is termed myelopathy, whereas if it occurs in the lower back it is termed cauda equina syndrome.

When nerves in the spinal canal are compressed, it can affect the way the nerves work and lead to symptoms that include:

- Lack of co-ordination in your arms or legs
- Heaviness or weakness in your arms or legs
- Problems walking
- Loss of control or sensation with bladder or bowels
- Loss of sensation between your legs

These are serious symptoms, and if left untreated, these symptoms could lead to permanent spinal cord damage.

In very rare and particularly severe cases of scoliosis the ribcage can be pushed against the heart and lungs causing breathing problems. This could also affect the digestive system.

What about Surgery?

Surgery for adults with scoliosis is usually only recommended if the curve in the spine is severe and compressing spinal nerves or internal organs, or if it's getting significantly worse. There are two types of surgery:

- Decompression surgery – where disc or bone is removed to release pressure on a nerve
- Spinal fusion surgery – where the position of the spine is improved using metal rods, plates and screws

These are major operations and it can take a year or more to fully recover. There is also a risk of potentially serious complications.

Summary: what are the key take home messages?

- Scoliosis is usually not serious, and can be effectively managed without surgery or injections
- Good days and bad days are normal
- Remain as active and undertake exercise to improve your fitness
- Painkillers with exercise are more effective than on their own
- Use pacing strategies, rest and medication to increase your function
- Although activity maybe painful, you are not harming your spine