The Brain and Spine Foundation provides support and information on all aspects of neurological conditions. Our publications are designed as guides for people affected by brain and spine conditions—patients, their families and carers. We aim to reduce uncertainty and anxiety by providing clear, concise, accurate and helpful information, and by answering the common questions that people ask. Any medical information is evidence-based and accounts for current best practice guidelines and standards of care.

Introduction

This booklet provides information on spinal tumours. The information is on benign and malignant spinal tumours in adults and focuses on primary spinal tumours. The booklet describes spinal tumours and provides information on common symptoms, tests and investigations, and possible treatments. It also provides information on recovery and returning to everyday activities. Sources of further support and information are listed in the Useful Contacts section. References are available on request.
Common questions

What is a tumour?
Our bodies are made from building blocks called cells, each with its own structure and function. Cells grow and multiply naturally and normally as we grow up through childhood into adulthood and to repair tissue and wear-and-tear damage to our bodies (for example, when our skin heals after a cut or graze).
A tumour is a swelling or lump formed when certain cells grow and multiply abnormally.

What is a spinal tumour?
A spinal tumour is an abnormal growth of cells in the spine.
If any cells in the spine grow and multiply abnormally to cause a spinal tumour, this is called a primary tumour.
If abnormal cells have spread to the spine from a cancerous tumour in another part of the body, this is called a secondary tumour or a metastasis (‘secondaries’ or metastases).

The Central Nervous System
The central nervous system is made up of the brain and spinal cord.
Messages (nerve impulses) from the brain travel along the spinal cord and control the activities of the body such as the movement of the arms and legs, the function of the organs and sensory functions like touch and temperature.
The peripheral nervous system (the network of nerves outside the central nervous system) carries messages between the central nervous system and the rest of the body.
The spine

The spine comprises the backbone and the spinal cord. The backbone is made of vertebrae (spinal bones). Some of the muscles in the back form part of the structure of the spine.

The spinal cord extends from the brain to the lumbar section of the spine. The backbone continues beyond the lumbar section to the coccyx (tail bone).

The brain and the spinal cord are surrounded and protected by cerebrospinal fluid (CSF). The dura mater (dura) is the tough, fibrous membrane which forms the outer covering of the brain and spinal cord.

Nerves branch out from the spinal cord through the dura and vertebrae and become part of the peripheral nervous system.

Different sections of the spinal cord are responsible for different movements and functions of the body.

What are benign and malignant spinal tumours?

Benign spinal tumours are non-cancerous. They are always primary tumours (that is, they start in the spine). They do not spread into and invade the tissue surrounding them in the same way as malignant tumours (see below) and they do not send secondary tumours to other parts of the body. However, benign tumours can grow to a considerable size, creating pressure on and damaging the tissue surrounding them in the spine.

Benign spinal tumours usually occur inside the membrane surrounding the spinal cord and nerves (the dura). Tumours within the dura are called intradural tumours. Benign spinal tumours are not often found in the bones of the spine (the vertebrae). Consequently, they rarely disturb the strength of the bone structure of the spine.

Malignant spinal tumours are cancerous. They spread into and invade the tissue surrounding them. The rate at which they invade the surrounding tissue depends on how malignant they are.

Common questions

What causes spinal tumours?

We do not yet know with any certainty what causes primary spinal tumours and we do not know why some are benign and some are malignant.

Secondary spinal tumours are always caused by a cancerous tumour in another part of the body.
Could I have prevented my spinal tumour?

No. We have not established clear risk factors for spinal tumours in the way that, for instance, smoking has been established as a clear risk factor for lung cancer.

Are there warning signs?

No, there are no warning signs before the onset of symptoms. Some benign tumours grow very slowly over several years and can reach a large size before they are detected. Malignant tumours tend to grow more quickly and will usually have been present for a shorter time when they are discovered. The onset of symptoms does not tell us how long the tumour has been there or whether it is benign or malignant.

How common are spinal tumours?

Spinal tumours are not common. Fewer than 1,000 people are diagnosed with primary spinal tumours each year in the UK. Secondary spinal tumours are more common.

Are my family at risk?

The hereditary risk of spinal tumours is very low. It is rare for a spinal tumour to be traced to a genetic factor passed on within a family. If one of your relatives has also had a spinal tumour it can almost always be put down to coincidence. An increased risk does exist with some very rare genetic conditions such as neurofibromatosis.

Names of spinal tumours

There are several different types of spinal tumours. The names of specific tumours tend to be based on the type of cell that is growing abnormally or their particular location in the spine. For example, gliomas grow from glial cells and, more specifically, astrocytic gliomas (astrocytomas) grow from a particular glial cell called astrocytes (‘star-shaped’ cells).

Examples of the names of specific tumours include chordomas (in the bone), extradural tumours such as myelomas, neurofibromas and lymphomas, and intradural tumours such as meningiomas, schwannomas, and ependymomas. Names of spinal cord gliomas (intramedullary tumours) include astrocytomas and ependymomas.

Spinal lesions

Sometimes the term ‘spinal lesion’ is used by doctors when the exact nature of an identified abnormality in the spine is not yet known.

Although a tumour might be suspected, a spinal lesion could turn out to be caused by another problem such as an abscess, bleeding or an infection.
Common questions

Where do spinal tumours occur?
Any section of the spine can be affected by tumours, from the top of the neck down to the coccyx (tail bone).

Tumours in the bone are the most common type of spinal tumour. These are usually secondary tumours. Primary bone tumours are rare.

Tumours can occur outside the dura (the outermost membrane covering the brain and spinal cord). These are called extradural tumours. They can also occur inside the dura. These are called intradural tumours.

Less commonly, tumours can occur inside the spinal cord. These are called intramedullary tumours.

What are the symptoms?
The symptoms of a spinal tumour depend on factors such as the size of the tumour, its exact location and which part of the spine is affected. Tumours can cause pressure in the spine and compress (squeeze and press on) the spinal cord. This is called spinal cord compression.

When the spinal cord is compressed, messages (nerve impulses) cannot be transmitted properly to and from the brain.

Spinal cord compression can be caused by other problems such as a back injury, an abscess, a slipped disc, or other conditions causing inflammation. Your doctors will rule out these other causes of spinal cord compression during the tests and investigations you have.

People might not experience all of the main symptoms of a spinal tumour but they are likely to experience more than one of them.

Back pain
It is important to note that aches in the neck or general backache are most likely to be due to wear and tear in the joints or discs, or caused by a specific problem like a slipped disc.

One of the most common symptoms of a spinal tumour is pain in or near the spine. Often the pain is not relieved by resting and it might get worse when you lie down or go to bed. Pain that starts in the back before radiating around the body is a sign that nerves could be affected. This type of radiating pain might be caused by a tumour but it is not necessarily the case.
Common questions

Unusual sensations

You might experience weakness or a change in sensation (unusual feelings) in one of your arms or legs or in the lower half of your body. These unusual sensations are called paraesthesia.

The unusual feelings (paraesthesia) that people experience can include numbness, pins and needles, and a heightened sensitivity to touch and temperature. The feeling of clothing on the skin might cause discomfort or pain (allodynia). People might experience extreme heat or cold, or lose the ability to tell the temperature of water or objects. Sometimes, a horizontal line or band can be drawn around the torso (the trunk of the body) or around the waist where the unusual sensations begin.

Pain spreading down an arm or leg from the spine is a common symptom of a slipped disc. Slipped discs are much more common than spinal tumours.

Problems affecting the legs

Worsening numbness, tingling or weakness in the legs should be taken seriously as it can indicate that there is a problem with the spinal cord whatever the specific cause. It might be that a tumour compressing the spinal cord is the cause. You should seek medical attention if you experience these symptoms and especially if you have been previously diagnosed with cancer elsewhere in your body.

Unusual feelings only affecting the feet are a possible sign of problems with the longest nerves within the peripheral nervous system. Sometimes worsening numbness, tingling or weakness can be experienced in both arms as well as both legs. This is a possible sign of a problem in the cervical section of the spine (the neck).

Bladder or bowel problems

Before people experience bladder or bowel problems caused by a spinal tumour, they usually experience unusual sensations or weakness in their legs.

Bladder or bowel problems caused by compression of the spinal cord or nerves might include incontinence (a loss of control of bowel movements or passing urine), needing to go to the toilet with increased frequency or urgency, or difficulty emptying the bladder or bowel. You should seek medical attention if you experience these symptoms, especially if your sexual function is also affected.
Tests and investigations

After the onset of symptoms, most people would usually see their GP who then refers them to a local hospital, or directly to a neuroscience centre, for tests and investigations.

If your symptoms have developed very gradually, you are likely to have an outpatient’s appointment in the first instance, rather than be admitted to hospital. If you are being treated for cancer in another part of your body and your doctors suspect that your symptoms are caused by the cancer spreading to your spine, they will arrange the tests and investigations.

X-rays of your spine will provide important information. However, spinal tumours are usually confirmed with the results of an MRI scan or a CT scan (see below) and possibly a biopsy (see below).

MRI scan

An MRI (Magnetic Resonance Imaging) scan produces pictures of the spine using strong magnetic fields and radio waves. It differs from a standard X-ray as it produces very detailed pictures.

During the scan you will lie in a long tube. The scan is painless but, unfortunately, the scanner is very noisy. Earplugs or headphones will be provided.

If you think you will feel anxious or uncomfortable in the confined space of the scanner tunnel you should tell the staff before the scan. You should also tell them if you unexpectedly feel anxious just before you are due to enter the scanner tunnel.

Sometimes a dye (MRI contrast agent) is injected into a vein in your arm to help show the tumour more clearly in the pictures.

CT scan

A CT (Computerised Tomography) scan is a special type of X-ray which takes pictures of your spine from different angles.

During the scan you will be asked to lie on a scanner table while the scanner rotates around your body. It is a quick and painless examination.

Sometimes a dye (CT contrast agent) is injected into a vein in your arm to help show the tumour more clearly in the pictures.

(You might be interested in reading our fact sheet on brain and spine scans for further information.)
Tests and investigations

Isotope bone scan
An isotope bone scan is a test to show if there is a problem with your bone tissue. It involves a very small amount of a radioactive chemical being injected into a vein. After a delay to allow the chemical to move around your body, pictures are taken using special equipment (a gamma camera). The chemical concentrates in abnormal bone so any problems with the bone tissue can be detected in the pictures. Only a very small amount of radiation is used and the test is safe.

Biopsy
A biopsy is an operation to remove a small sample of a tumour to be sent for examination by a pathologist (a doctor who specialises in the causes, effects and behaviour of diseases). You might have a biopsy if your doctors are not sure from the results of your scans what type of tumour you have.

Sometimes the biopsy can be performed under a local anaesthetic using a large needle. This will depend on the size and location of the tumour. Scanning equipment is used to guide the needle. A sample of the tumour is taken via the needle. Usually, you will need to lie face down. Some people find the procedure uncomfortable.

Otherwise, open surgery will be performed under a general anaesthetic. A small incision (cut) is made, usually over the back of the spine, to expose the area where the tumour is located. A small amount of the tumour is removed and sent for analysis. A preliminary diagnosis is often made during the biopsy operation but it might not be confirmed for several days.

Possible treatments
There are different treatment options for spinal tumours and specific treatment pathways will differ for each individual. Your medical team will discuss your best treatment options with you. These will differ depending on the type of tumour you have and other factors such as the size of the tumour, its exact location and which part of your spine is affected.

Spinal tumours can be serious and life-threatening. It is not always possible to treat them successfully.

The four main treatment options for spinal tumours are surgery, radiotherapy, radiosurgery, and chemotherapy.

Surgery
The aim of surgery is to remove the tumour without damaging the spinal cord or the nerves surrounding the tumour. Surgery is most commonly used to treat benign spinal tumours but it might be used to treat some malignant tumours (for example, a chordoma tumour in the bone). Surgery is not suitable for everybody and you might be advised against it because of the risks associated with your individual situation. Your medical team will discuss the best treatment options with you.

The surgery is carried out by a neurosurgeon who specialises in surgery on the brain and spine. The operation is carried out under a general anaesthetic which means you will be asleep throughout and will not feel anything. An incision (cut) is made at the point where it is easiest to reach the tumour. This might be on your back, your neck or your side.

Often benign tumours can be removed completely by surgery. However, this is not always possible and, in some circumstances, it is safer to leave a small amount of the tumour behind than to risk causing damage to the spine or nerves. Tumours within
Possible treatments

the spinal cord are particularly difficult to treat with surgery and a complete removal of the tumour might not be possible. The neurosurgeon will remove as much of the tumour as they judge to be safe. The partial removal of a tumour is called debulking.

Spinal tumours in the bone can be very difficult to remove with surgery. Often, the difficulty is a combination of the size of the tumour, access to it (tumours in the bone can extend around the spinal cord from the front to the back of the spine), and the need to preserve the stability of the vertebrae (spinal bones). In some cases, the spine will need to be strengthened by an implant. This would usually involve a longer, more complicated operation and a longer recovery period.

Spinal tumours and surgery to treat them can cause damage to the supporting structures of the spine. This results in weakness and instability and allows abnormal movement of the spine which can cause further damage to the spinal cord and nerves. To help provide support and stability, some people have metal supports implanted into their spine at the time of their surgery. Some people might also wear an external brace or reinforced jacket after their surgery to provide extra support while they are recovering strength and stability.

Even if the complete removal of a spinal tumour is not possible, the partial removal of the tumour (debulking) can relieve pressure on the spinal cord and increase the chances of people recovering from weakness and paralysis.

(You might be interested in reading our booklet on spinal surgery for further information.)

Radiotherapy

Radiotherapy is often used to treat malignant tumours. It might also be used after surgery to try to deal with any remaining tumour. If you have had surgery, you will be given time to recover and for your wounds to heal before receiving radiotherapy treatment. If you have been diagnosed with a primary cancer elsewhere in your body, you might also receive radiotherapy treatment for this cancer.

Radiotherapy treatment is planned and carried out by a radiotherapist who might also be an oncologist (a doctor who specialises in cancer). It is likely that your radiotherapist will have a specific interest in tumours of the central nervous system (the brain and spinal cord). They will explain the radiotherapy treatment to you, discuss the treatment with you, and talk through any worries or concerns you might have.

Radiotherapy will not always be available at the same hospital where neurosurgery is carried out but there is always a close link between the hospitals providing your treatment.

Radiotherapy uses X-rays and gamma rays to damage or destroy the tumour. The effect on the tumour is to slow its growth and lengthen the time before it regrows. In some circumstances, radiotherapy can cure the tumour.
Possible treatments

The exact method of radiotherapy treatment will differ for each individual depending on factors such as the type of tumour, its size and location. The specific purpose of the treatment might also differ for individuals. For example, to relieve pain, someone might be given a single dose of radiotherapy. To cure a tumour, someone might require daily radiotherapy over a course of several weeks.

Common side effects of radiotherapy are a temporary worsening of the existing symptoms and inflammation of the skin, similar to sunburn.

Most people feel tired towards the end of their course of radiotherapy. Other side effects can include bone fractures and changes in the bone marrow.

Radiosurgery (gamma knife)

Radiosurgery is a technique for treating spinal tumours which is only available in a few specialised neurological centres in the UK. The two main methods of carrying out radiosurgery are by gamma knife and by modified linear accelerator (linac). Both methods use a high energy dose of radiation that can be focused on a very precise point in the spine.

The linac uses only one beam of high energy radiation which arcs around a single point, treating that specific area but not affecting the surrounding tissue. The gamma knife uses hundreds of energy beams which combine to form a high energy point at their focus, each individual beam being too weak on its own to damage any healthy tissue in its path.

Unlike radiotherapy, which might require several sessions over weeks and months, radiosurgery is completed in one session and does not require an overnight stay in hospital. People are able to return to their normal routine immediately after the treatment without experiencing any of the side effects of surgery or radiotherapy.

It can take a long time for radiosurgery treatment to work and tumours might shrink in size slowly over months and years.

Radiosurgery is not suitable for everyone and your doctor will discuss your best treatment options with you.

**Intensity Modulated Radiotherapy (IMRT)** is a newer form of very precise radiation treatment carried out with the linac. Energy beams of varying strengths (modulated beams) and three-dimensional scans are used to focus the radiation on the specific shape of individual tumours and minimise damage to the surrounding healthy tissue.

Chemotherapy

Chemotherapy is the use of drugs to destroy tumour cells in a way which is similar to the use of antibiotics to kill bacteria.

Chemotherapy is mostly used for people with spinal tumours caused by primary cancers elsewhere in the body.

There are different types of chemotherapy. Some are taken by mouth and others are given via a drip into a vein. Chemotherapy is usually prescribed by an oncologist who has expertise in both radiation and chemotherapy. The consultant in charge of giving chemotherapy will be happy to discuss the treatment with you.

The possible side effects of chemotherapy vary considerably depending on the particular drug used. They include nausea (feeling sick), tiredness, hair loss, and a reduced resistance to infection. You should discuss these possible side effects with the specialist providing your treatment.
Other treatments

**Physiotherapy**

If you have weakness in your limbs, physiotherapy exercises can help to improve your strength, co-ordination and balance. The aim of physiotherapy is to maximise the speed and extent of your recovery after your main treatment, ensuring that you regain and maintain independence as soon as possible. Even if you are experiencing complete paralysis of a limb, exercise and movement is important to ensure that the joints do not become stiff and you do not experience spasticity (muscle spasms) or muscle contractions.

Sometimes, special techniques can be used to compensate for paralysis. These techniques assist particular movements and can help maintain mobility and independence (for example, techniques to assist getting in and out of bed or using a wheelchair).

Paralysis of the limbs, or a significant loss of strength and movement, can increase the risk of spasticity (muscle spasms) and stiffness. People can find it difficult to move their legs and they might find that their legs jump or twitch in bed. Different drugs are available to help reduce stiffness and muscle spasms (for example, Baclofen, or Botox injections). These drugs can improve mobility and comfort, especially when combined with regular gentle exercise to stretch the affected muscles.

**Steroids**

Steroids are used to reduce any swelling in the spine. This helps to relieve pressure on the spinal cord and nerves and provides some protection from spinal cord compression. Steroids are usually given during a course of radiotherapy or before surgery. Dexamethasone is the name of the steroid most commonly used to treat spinal tumours.

Side effects of steroids might occur after several weeks of treatment and can include weight gain, acne, stretch marks, muscle weakness, diabetes, sleep disturbance, hunger and feelings of elation. For most people, these side effects go when the steroids are stopped. Steroid tablets can irritate the lining of the stomach and increase the likelihood of getting stomach ulcers. You might be given anti-ulcer drugs to reduce the risk. You might also be given an antacid drug either in liquid or tablet form.

**Pain-relief drugs**

For people with spinal tumours, pain-relief drugs are used mainly to control back or neck pain. They might be combined with other drugs to control nausea (feeling sick) and vomiting (being sick). If a morphine based drug is used, it might be combined with a drug to reduce the risk of constipation as a side effect. There are many different types of pain-relief drugs and your doctors will try to use the most effective one for your individual situation.
Other treatments

Occupational therapy
An occupational therapist can give advice on everyday activities such as washing, dressing, cooking, eating and using equipment around the home. The aim is to help people regain and maintain their independence. They can also give practical advice for people in their workplace.

Sometimes, a small piece of equipment or minor adaptation is all that is required to make someone’s everyday life easier. For example, problems relating to access can often be overcome with alterations such as ramps and handrails.

Bladder and bowel management
If you have problems controlling your bladder, you might require a urinary catheter. This is a tube inserted into the bladder to drain away urine. Your doctors can advise you if they think a urinary catheter would be helpful for you.

People with bladder problems often also have problems with the function of their bowel. It might be that your bowel can be retrained to ensure regular motions. Your doctor or nurses can advise you.

Skin care
Any areas of the body with numbness or a loss of feeling are susceptible to pressure sores because the person will not feel any points of pressure when they are sitting or lying in bed.

If someone is experiencing severe numbness or loss of feeling, they should be turned frequently in bed to change their position and prevent pressure sores. It is important to keep the skin clean and dry to maintain a healthy condition. This sort of nursing care can be demanding and it might be difficult to carry out at home. Specially designed beds and support cushions are available to help prevent pressure sores. These can make home care easier. If someone is experiencing a loss of temperature sensation it is important to take care to avoid burns from bath water.

Complementary therapies
Some people find that complementary treatments and therapies such as acupuncture, massage, hydrotherapy, aromatherapy and reflexology are helpful. Most doctors would only recommend using these treatments and therapies alongside established medical treatments rather than as a substitute for them. You should check with your doctors or nurses that these therapies are safe to use alongside your main treatment.

Complementary treatments and therapies are unlikely to provide specific treatment for your tumour but they might help to improve your general well-being.

Clinical trials
Sometimes there is the opportunity for people with spinal tumours to take part in clinical trials as part of their treatment. Clinical trials test new treatments on patients and compare the results with standard treatments. Patient participation in clinical trials is voluntary. Your medical team can discuss any clinical trial options with you and answer any questions you might have about taking part.

(You might be interested in reading our fact sheet on clinical trials for further information.)
Recovery

The extent of the recovery you might make will depend on factors such as the nature of the underlying condition causing your spinal tumour and whether you are experiencing severe symptoms like paralysis.

The effectiveness of your treatment is important and this is easier to assess for benign tumours than for malignant tumours. Malignant spinal tumours are often more difficult to treat. Each individual’s chance of recovery is often determined by the specific type of tumour they have and to what extent the cancer has spread in their spines.

It is often possible to remove benign spinal tumours completely with surgery. Some malignant tumours might also be removed completely. This is more likely to be possible with primary malignant tumours than with secondary malignant tumours. Successfully removing all of a tumour increases the chance of a good or full recovery and reduces the risk of the tumour recurring.

Secondary malignant tumours are difficult to treat. The extent of possible recoveries and longer-term outlooks for individuals will depend on the type of cancer they have elsewhere in their body, how far this cancer has spread, and how effective the treatment on the secondary tumours in the spine has been. The specialist team treating the primary cancer will often take on the responsibility for the treatment of secondary spinal tumours.

The spinal cord and nerves are often slow to recover if severely compressed and badly damaged. Most people find that the longer they experience complete paralysis, the less likely recovery of feeling and movement becomes.

Fatigue

People often experience tiredness or fatigue (severe tiredness) after serious illness, especially if they have undergone surgery, or treatments like radiotherapy and chemotherapy. For some people this will pass after a few weeks. However, people with spinal tumours can experience longer-term fatigue.

You might find that you become exhausted even after commonplace activities like getting washed and dressed, going to the shops, watching television, or talking with friends. Taking regular breaks can help. Try to do this at least three times a day for around 20-30 minutes. Listening to your favourite music might be helpful, but try to avoid anything too stimulating like watching television or reading.

It can help to have a daily routine. Try to get up and go to bed at regular times each day. Plan some relaxation breaks during the day. If you return to work, you could talk to your employer about the possibility of being given time for some extra breaks during the working day.
Recovery

Practical support

There are a number of organisations that help people affected by spinal tumours and other forms of cancer. The most well known are the Macmillan Cancer Support teams and the Hospice Movement. These services are available throughout the country. They deal mainly with people affected by malignant tumours. If you feel that you might need the type of support they offer, you can discuss this with your GP or the specialist team looking after you.

If you are feeling depressed or worried while staying in hospital or attending an outpatient appointment, you should feel free to speak to the specialist cancer nurse attached to your medical team. The specialist nurse might be available to offer counselling, support and advice.

If you are having, or think you might have, financial problems because of the impact on your ability to work, you might be eligible for several different payments. It is likely that a social worker is attached to the unit where you are receiving your treatment. Whatever your situation, it could be helpful to talk to them as soon as possible. It might also be helpful to talk to your local Citizens Advice Bureau for advice on what financial support is available to you.

Everyday activities

The timescale of returning to everyday activities will differ for each individual depending on the speed and extent of their recovery. Two factors which commonly delay or cause difficulties returning to everyday activities are persistent symptoms (weakness, paralysis, or bladder and bowel problems) and instability of the spine.

Can I drive?

Having a spinal tumour might affect your right to hold a driving licence, depending on the symptoms you are experiencing. If you have any problems with your spine which affect your ability to drive safely, you are obliged to notify the Driver and Vehicle Licensing Agency (DVLA) about your condition and you must not drive until you have DVLA approval. (For the DVLA’s contact details, see page 33.)

The DVLA will assess each case on an individual basis. The regulations for safe driving include basic strength and control of the arms and legs for steering and other vehicle controls, and basic movement of the neck and shoulders to turn in order to see out of side and rear windows. The DVLA will use the information you give them in a medical questionnaire to make their decision. If necessary, they will also liaise with your GP or specialist.

People with certain symptoms might be permitted to drive with specific modifications made to their vehicle. For example, someone with weakness in their legs might have hand controls fitted to their vehicle. Someone with weakness only in their left leg might drive an automatic car. The DVLA can advise on vehicle modifications.

Regulations are stricter for HGV (Heavy Goods Vehicle) and PSV (Public Service Vehicle) licences.
Can I fly?
Yes. There is nothing to stop you travelling by air unless you have serious neurological symptoms caused by a spinal tumour. If you have paralysis, the practicalities of air travel, especially getting on and off the aeroplane, might be difficult. Also, people with mobility problems can find the confined space of an aeroplane difficult. For example, getting up to use the toilet can be very difficult.

Can I play sport?
All contact sports such as rugby or martial arts should probably be avoided even after a full recovery.

Can I swim?
You should ask your doctor or specialist for individual advice. You might be able to swim once any wounds have healed and you have recovered strength and stability in your spine. Certain swimming strokes might not be appropriate depending on your individual situation.

Can I have sex?
Yes, you can have sex as soon as you feel ready. Women are advised not to become pregnant during their recovery as this can cause stress and strain on the back and supporting muscles.

When can I go back to work?
Being diagnosed with a spinal tumour does not mean that you have to give up work, although you will need to take time off during your treatment and recovery. This might mean you are unable to return to work for a long period.

The timing of your return to work will depend on what sort of work you do. For example, you might need to wait for the renewal of your driving licence or for adaptations to be made to your vehicle. Physical work might no longer be possible.

As recovery differs for each individual, the general advice is to use your common sense and only return to work when you feel able. You might find it helpful to discuss this with your doctors or nurses. Many people return to work on a part-time basis before returning full-time.

Most people find that returning to work is a positive part of their rehabilitation and a big step in getting back to their normal lives.
Health professionals

**Oncologist:** a doctor who specialises in the diagnosis and treatment of people with cancer.

**Neurosurgeon:** a specialist doctor who performs brain and spine operations.

**Neurologist:** a doctor who specialises in the diagnosis and treatment of people with neurological conditions.

**Neuroradiologist:** a specialist doctor who performs, reads and reports on scans such as CT scans and MRI scans.

**Radiographer:** a specialist trained to control the equipment used for scans such as CT scans and MRI scans.

**Radiotherapist:** a doctor specially trained to use radiation for the treatment of cancer and other conditions.

**Pathologist:** a doctor who specialises in the causes, effects and behaviour of diseases.

**Clinical Nurse Specialist:** a nurse who specialises in a particular condition or conditions, for example, neuro-oncology.

**Neurophysiotherapist:** a physiotherapist who specialises in treating people with neurological conditions. A neurophysiotherapist assesses, plans treatment and treats people with physical and mobility problems.

**Occupational therapist:** a specialist health professional who offers practical support and advice on everyday skills and activities like washing, cooking and using equipment at home.

**Counsellor:** a person trained to give guidance on personal or psychological problems.

Useful contacts

**Spinal tumours:**

**Brain and Spine Helpline**  
Brain and Spine Foundation  
3.36 Canterbury Court  
Kennington Park  
1-3 Brixton Road  
London SW9 6DE  
0808 808 1000  
www.brainandspine.org.uk

Run by neuroscience nurses, providing support and information on all aspects of neurological conditions for patients, their families and carers, and health professionals.

**Spinal Cord Tumour Forum**  
www.spinalcordtumour.org.uk  
info@spinalcordtumour.org.uk

Online support and information on benign spinal cord tumours.

**The Spinal Injuries Association**  
SIA House  
2 Trueman Place  
Oldbrook  
Milton Keynes MK6 2HH  
0800 980 0501  
www.spinal.co.uk

Support and information on spinal injuries and paralysis.
Useful contacts

**BASIC (Brain and Spinal Injury Charity)**
Brain and Spinal Injury Centre
554 Eccles New Road
Salford M5 5AP
0870 750 0000
www.basiccharity.org.uk
Support and information on neurological conditions.

**Neurosupport**
The Neurosupport Centre
Norton Street
Liverpool L3 8LR
0151 298 2999
www.neurosupport.org.uk
Support and information on neurological conditions.

**Cancer Research UK**
PO Box 123
Lincoln’s Inn Fields
London WC2A 3PX
0808 800 4040
www.cancerhelp.org.uk
Support and information on cancer.

**Macmillan Cancer Support**
89 Albert Embankment
London SE1 7UQ
0808 808 0000
www.macmillan.org.uk
Support and information on cancer.

**Bladder and bowel problems:**

**Bladder and Bowel Foundation**
SATRA Innovation Park
Rockingham Road
Kettering
Northamptonshire NN16 9JH
0845 345 0165
www.bladderandbowelfoundation.org
Support and information on bladder and bowel problems.

**Driving:**

**Driver and Vehicle Licensing Agency (DVLA)**
Drivers Medical Group
Longview Road
Swansea SA99 1TU
0300 790 6806
www.dft.gov.uk/dvla
www.direct.gov.uk/motoring
Information on medical rules for drivers.

**General health:**

**NHS Choices**
www.nhs.uk

**NHS Direct**
0845 46 47
Medical advice and information on health services.
Support groups

The Brain and Spine Foundation’s online discussion forum offers the opportunity to post messages, exchange views, share experiences and ask questions.

www.brainandspine.org.uk/applications/discussion

The Spinal Cord Tumour Forum website has a message board where you can read messages, post replies or start new topics of discussion.

www.spinalcordtumour.org.uk

Further reading

The Brain and Spine Foundation produces a booklet with information on spinal surgery and fact sheets with information on brain and spine scans and clinical trials.

References

Details of medical references used for this booklet are available at www.brainandspine.org.uk/references or on request from the Brain and Spine Helpline 0808 808 1000.
Thank you

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Brain and Spine Foundation

The Foundation provides support and information to those affected by the many conditions associated with the brain and spine. The charity relies heavily on voluntary donations and fundraising events to provide the services which have helped many thousands of people across the UK.

You can help the future work of the Brain and Spine Foundation by

- Making a donation
- Organising or taking part in a fundraising event
- Offering your time as a volunteer
- Remembering the Brain and Spine Foundation in your will

Further details available from the address/telephone number below or from www.brainandspine.org.uk.

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