Service: Neurosurgery and Orthopaedic

Information for patients undergoing Cervical (neck) surgery (Anterior and Posterior Approach)
Welcome to the spinal service. This booklet aims to give you and your family information about your forthcoming spinal operation. It is intended to answer most of the common questions regarding your recovery, going home and returning to normal activities.

During your outpatient appointment your operation will be discussed with you by your surgeon. Elective patients are seen in Pre-Assessment clinic (NPAC) and have a chance to discuss information with a Neurosurgical Nurse Practitioner (NNP). Prior to signing a consent form you have an opportunity to ask questions and to discuss your concerns. After the operation should there have been any variation on the original operation the doctor or nurse will inform you.

**Spinal anatomy (in brief):**
The spinal vertebra consists of:

<table>
<thead>
<tr>
<th>Term</th>
<th>No. of Vertebrae</th>
<th>Body Area</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cervical</td>
<td>7</td>
<td>Neck</td>
<td>C1 - C7</td>
</tr>
<tr>
<td>Thoracic</td>
<td>12</td>
<td>Chest</td>
<td>T1 - T12</td>
</tr>
<tr>
<td>Lumbar</td>
<td>5 or 6</td>
<td>Low Back</td>
<td>L1 - L5</td>
</tr>
<tr>
<td>Sacrum</td>
<td>5 (fused)</td>
<td>Pelvis</td>
<td>S1 - S5</td>
</tr>
<tr>
<td>Coccyx</td>
<td>3</td>
<td>Tailbone</td>
<td>None</td>
</tr>
</tbody>
</table>
The intervertebral disc is firmly bonded to the vertebrae both above and below. The disc is a specialised joint which permits the spine to bend and twist. The disc has a tough fibrous outer casing and a softer water filled jelly-like interior. Running through the spinal column is the spinal cord, which contains nerves that come from the brain. Nerves from the spinal cord come out from between the vertebrae and send and receive messages to and from various parts of the body. The true spinal cord ends at approximately the L1 level.

A collection of nerve roots at the end of spinal cord is called the “cauda equina,” (means horse’s tail).

Diagram (c)EMIS 2010 as distributed at http://www.patient.co.uk/health/Cervical-Spondylosis.htm, used with permission.
The following conditions may contribute to your symptoms:

Degeneration:
This is ‘wear and tear’ of the spine. With age the disc loses water and the composition of the disc alter. This is normal and happens to us all. The reduced height of the disc leaves less space for the nerves and may cause one or more spinal nerve to be trapped.

Osteophytes (bony outgrowths or ridges) can form at the edges of the vertebrae and may cause narrowing in the spinal canal. As degeneration persists, signs and symptoms may develop. Symptoms can include: pain down the arm or into the hand, pins and needles and numbness.

Spinal Stenosis:
This is narrowing of spinal canal through which the spinal nerves pass and therefore pinches one or more nerve root. This could occur as a result of degenerative process or osteophytes (bony outgrowths or ridges) can form at the edges of the vertebrae and may cause narrowing in the spinal canal. Other causes include inflammatory arthritis, trauma, previous surgery and other birth defects.

Disc prolapse or protrusion:
The outer wall of the disc becomes weakened and can deteriorate with age or as a result of excessive loading. The prolapsed disc bulges out and starts to irritate spinal nerves supplying your arm. The term “slipped disc” is misleading in that the disc cannot slip out and cannot be pushed back in. Conservative treatment that does not involve surgery, avoiding painful activity, painkillers and physiotherapy, can sometimes be enough to improve symptoms. We only offer you surgery if this type of treatment is proven to be unsuccessful or unlikely to be successful. Symptoms of a trapped spinal nerve include: neck, shoulder and/or arm
pain, pins and needles, numbness, muscle weakness in your shoulder, arm and hand

**Cord Compression:**

Any one of the above problems could put pressure directly on the spinal cord. The symptoms are similar to those described above but can also include muscle wasting (loss of muscle bulk), difficulty in walking, balance disturbances or unsteadiness and weakness in your legs.

**What investigations do I need?**

Generally a MRI scan is performed to confirm the diagnosis and to identify the level of the problem. At pre-assessment clinic the nurse will take blood tests, a nasal swab to screen for MRSA screen and if problems are identified they will refer you for additional investigations such as heart trace, scans (i.e. ECG, ECHO), exercise test that are required to decide if you are suitable to undergo anaesthesia. If your blood pressure is raised you may have to visit your GP on three further occasions to make sure it is within acceptable limits. X-rays are ordered before surgery if you are to have an artificial cervical joint inserted.

**What are my treatment options?**

Maintaining an ideal body weight, exercises to improve posture also strengthen spinal muscles should accompany any form of treatment, surgical or conservative.

Conservative treatment such as physiotherapy, painkillers and the passage of time may reduce the symptoms. Nerve root block injections are sometimes useful as diagnostic procedures and treatment for neck and arm symptoms. In some circumstances the specialists in the pain clinic see patients before surgery is indicated for their opinion. Surgery may not be the answer to symptom relief.
Cervical surgeries
These procedures are preformed under a general anaesthetic.

Cervical decompression/discectomy: This is a widely used term whereby the pressure is taken off from one or more nerves/spinal cord. Different terminologies are used for decompression based on the anatomical area that is being decompressed.

Anterior cervical decompression with fusion: The incision is from the front, just to the side of your throat. The surgeon will stabilise the vertebrae either using an interbody spacer ‘spinal cage’, or by using a bone graft taken from your hip. Sometimes a plate and screws are placed to hold and align the bones.

Anterior cervical decompression with joint: The incision is from the front, just to the side of your throat. The surgeon will use an artificial joint to replace your removed disc.

Posterior Foraminotomy: The incision is through the back of the neck. The nerve root is decompressed where it passes through the spinal foramen.

Posterior Laminectomy: Incision at the back of the neck. The entire lamina is removed from back of vertebra.

Posterior Cervical Fusion: The incision is from the back of the neck. The surgeon uses metal work (screws and rods or wiring) to fuse the cervical bones to the skull or other cervical vertebrae.
What are the risks associated with cervical spinal surgery?

**Swallowing difficulties or changes to voice:** You may have experienced some swallowing problems before you had your operation. For operations involving anterior approach (front of your neck), your oesophagus (food tube) and larynx (voice box) have to be moved to one side during the operation. Following this, some patients experience temporary problems with swallowing, voice problems or breathing difficulties due to bruising or swelling. These problems often improve within weeks, but if they persist you will be referred to the speech and language therapist and, if necessary, a dietitian in the hospital. Sometimes you may be given a short course of steroids to help reduce any swelling.

**Bleeding:** Bleeding from the veins around the nerve and rarely require blood transfusion. You may return from surgery with a small drain in place which will be removed after 12 hours.

**Wound infections:** Currently our infection rate is around 1 in 100. However infections can range from minor to moderate and include redness, tenderness, improper healing or wound gaping, raised temperature. Usually it is easily treated with antibiotics. We kindly ask you to complete the issued questionnaire about your wound healing 30 days after your surgery and post it back to us.

Other types of infections include urinary tract infection and chest infection which can be treated with antibiotics.

**Deep vein thrombosis (DVT):** During the weeks following surgery there is a risk that out of 100 patients between five and ten may develop a blood clot in their leg due to reduced mobility for a short period of time during and after the operation. You will be asked to wear elastic stockings before the operation and in theatre. They use mechanical pneumatic pumps & boots, both of these may be used initially in the
post-op phase until you are able to mobilise. It is essential to perform deep breathing exercises to prevent any respiratory problems. Also, wriggle your toes and get out of bed as soon as advised by your surgeon. Should you remain in bed after a period of 24 hours or have reduced mobility your surgeon may prescribe a blood thinning injection until you are discharged from hospital. (Please refer to trust DVT information for further information).

**Pulmonary Embolism (PE):** Occasionally a clot can break off from DVT and passes to the lungs via the heart causing PE in 1 in 1000 of patients who undergo surgery. This is a life threatening complication and needs immediate treatment.

- **Nerve damage can occur during the operation;** however this is classed as low risk in less than 1 in 100 of patients. It can result in numbness and/or pins and needles and in rare cases significant damage to bladder and bowel function, or paralysis. You will be assessed after surgery for any of these issues by both the nursing and medical team.

- **Paralysis:** Although total paralysis with these types of surgeries is extremely rare, it can occur. The risk is one in several thousand.

- **Dural tear:** The spinal cord is lined by three layers one of those layers is called the dura, which can get punctured during the operation. This then results in leakage of spinal fluid. It can occur in one to five out of 100 patients generally undergoing spinal surgery but it is rare in cervical spine surgery. You may be advised to undertake a period of bed rest for 48-72 hours and you may experience severe headache, wound leakage of clear fluid or wound swelling. Occasionally further surgery is required.
Are there any other potential complications?
Fortunately, most complications can be treated and although they are inconvenient and cause setbacks there are no long-term consequences.

- **Bladder hesitancy**: Anaesthesia can sometimes affect the bladder control and this can lead to urinary retention. Patients may be catheterised short term and if subsequently are unable to successfully pass urine normally they may be sent home with urinary catheter and referred to the local urology clinic.

- **Constipation**: Some of the analgesics can cause constipation. It is important you are able to empty your bowel daily to avoid straining as it can increase your back pain and affect your bladder emptying. Daily walking, exercises, fibre rich diet, oral laxatives can help if bowels are not open for three days after which sometimes you may need a suppository.
Before Surgery

What preparation should I undertake?
We advise you to have a shower on the day or night before your surgery and wear freshly laundered clothes to the hospital. This is to minimize the risk of surgical site infections. Please avoid any perfumes or make up. We advise you to remove your nail varnish and where not possible, at least one finger nail in the case of false nail/acrylic nails should be exposed.

What time should I starve for the operation?
The hospital nil-by-mouth policy allows patients to eat six hours prior to their operation and three hours to drink clear fluids such as water/black coffee or black tea (NO milk). Please avoid chewing gum. Please follow the instructions provided in your admission letter for the exact time. There is a chance your operation might be rescheduled.

What medication can I take prior to surgery?
Please bring your usual medications and ensure you have enough supplies. All patients can continue to take their usual medications (except those listed below) with 60mls of water even when fasting.
Special notes for table below:

- Insulin depended patients may be put on an insulin pump on the day of your surgery while fasting.

- These drugs are stopped a few days prior to surgery to reduce the risk of bleeding. At NPAC your ANP will take your drug history. The decision to stop is made after the ANP discusses with your spinal surgeon, weighing the risk versus benefits as you might be taking them to prevent any future cardiovascular complications.

- To reduce the risk of thrombo-embolism during surgery.

- Herbal medications may need to be stopped one week prior to surgery due to lack of evidence about adverse interactions with a general anaesthetic.

Please contact your ANP if you are unsure. After surgery you will be informed when to restart these medications.
Information for patients undergoing Cervical surgery

<table>
<thead>
<tr>
<th>Drugs (see tick below for medications relevant to you)</th>
<th>When to stop (see tick)</th>
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</thead>
<tbody>
<tr>
<td><strong>Blood pressure medications ending with –opril and -artan:</strong></td>
<td></td>
</tr>
<tr>
<td>☐ Lisinopril</td>
<td>☐ Omit on day of surgery</td>
</tr>
<tr>
<td>☐ Ramipril</td>
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<tr>
<td>☐ Perindopril</td>
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<tr>
<td>☐ Lorsartan</td>
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<tr>
<td>☐ Candesartan</td>
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<td>☐ Candesartan</td>
<td>☐ Omit on day of surgery</td>
</tr>
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1 **Diabetic medications**

| ☐ Metformin                                           | ☐ Omit on day of surgery |
| ☐ Gliclazide                                          |                         |
| ☐ Glipizide                                           |                         |
| ☐ libenclamide                                        |                         |
| ☐ Insulin                                              |                         |

2 **Anticoagulants and Antiplatelets:**

| ☐ Aspirin                                             | ☐ Stop 7 days before surgery |
| ☐ Clopidogrel                                         | ☐ Stop 10 days before surgery|
|                                                       | ☐ Switch to Aspirin 75 mg,  |
|                                                       | 10 days before surgery      |
| ☐ Dipridamole                                         | ☐ Instructions to follow    |
| ☐ (Persantin/Asasantin) Ticagrelor                     |                         |
| ☐ Prasugrel                                           |                         |
| ☐ (Persantin/Asasantin) Ticagrelor                     |                         |
| ☐ Warfarin                                            | ☐ Instructions to follow    |
| ☐ Rivaroxaban                                         |                         |
| ☐ Instructions to follow                              |                         |
| ☐ Apixaban                                            |                         |
| ☐ Instructions to follow                              |                         |
| ☐ Dibigatran                                          |                         |
| ☐ Instructions to follow                              |                         |
| ☐ Apixaban                                            |                         |
| ☐ Instructions to follow                              |                         |
| ☐ ...... days pre-op                                  |                         |

3 **Oestrogen containing contraceptive pills and HRT**

| ☐ 4-6 weeks prior to surgery |

4 **Herbal medications**

| ☐ 1 week before surgery |
After surgery

Will I experience pain?

Most cervical microsurgery is undertaken to relieve arm pain and associated symptoms. Good relief from arm pain occurs in approximately 90 - 95% of patients. Wound pain can last for two to three days. Patients can continue to have discomfort and their symptoms as pre-op for some time following surgery, however this is expected whilst your body is healing. A prolonged sore throat can last up to one month, but usually subsides long before this time. Some patients can also experience pain across the shoulder blades and neck because the muscles have been stretched during the operation. You can begin to reduce your pain killers when you feel the pain is settling. If you are concerned or have new symptoms then please contact the spinal NNP.
What tablets will I take home with me?

You will be required to have a good stock of your usual supply of medications prior to admission. Patients usually require some pain killers for two to four weeks post operatively. The hospital is not obliged to supply any over-the-counter medications. You may be issued with around two weeks’ worth of painkillers if any additional ‘prescription only drugs’ are required. After that time you are expected to visit your GP for additional supplies. Any medications that you brought into hospital will be returned to you on discharge, as appropriate.

- **Paracetamol** – used as first-line painkiller which you should take regularly if you are still in pain at home. You can take a maximum of eight tablets in any 24 hours leaving a four hour period between doses.

- **Codeine/tramadol** – mild opioid-based painkillers which can be taken in addition to paracetamol if you are still in pain.

  Common side effects include drowsiness and constipation.

- **Ibuprofen/diclofenac** – anti-inflammatory painkillers, usually used for relatively short periods. These must be taken with food. They can also be taken in addition to paracetamol, codeine and tramadol. Avoid taking them if you have a previous history of stomach ulcers.

  Because codeine/tramadol can cause constipation you may also be given some laxatives, such as:

  - **Senna** – a laxative which usually takes effect within 12 – 24 hours.

Seek advice from your GP if you have constipation for more than three days after taking the laxatives.
At the time of stopping medications such as opiates, Gabapentin, Amitriptyline etc. we strongly advise you to slowly taper them off in small doses over a period of time to minimise withdrawal effects.

**When will I be discharged home?**

The estimated discharge time following routine anterior or posterior cervical microsurgery is one to two days, depending on your post operative recovery and your home circumstance. You will be reviewed on the next day of your operations by your surgical team, who will make sure you do not have any complications. An x-ray may be performed to look at the neck alignment prior to discharge, this happens following all anterior approach surgeries. When this x-ray has been checked you will be discharged home.

**What should I be aware of while recovering from my operation?**

Recovery after your operation may be gradual; you will not get better overnight. You may experience “off” days where you appear to be in discomfort, do not despair - this is normal. If you experience any of the below you must contact your spinal nurse practitioner in normal working hours or your GP immediately:

- Constant pain which gets worse.
- Existing numbness gets worse (or new numbness).
- Muscle weakness.
- Change in bladder function.
When should I get my wound checked?
The skin is usually closed with paper strips (steristrips) which are left in place for five to seven days. They may then be peeled off or fall of themselves. On occasion clips or sutures are used which are removed after five to seven days. If this is the case the ward nurse will provide you with the clip remover to take to your local treatment room nurse. Please book an appointment with your local surgery. You will be issued with a letter from the ward nursing staff to take to your surgery. It is important for a nurse or a family member/friend to inspect your wound to ensure good healing is taking place, looking especially for any gaping, leaking, swelling or redness.

How long will my wound take to heal?
Wound healing goes through several stages. You may experience tingling, numbness or some itching around the wound. The scar may feel a little lumpy as the new tissue forms and it may also feel tight. These are all usual features of the healing process. **DO NOT** be tempted to pull off any scab which acts as a protective layer as it can delay wound healing and introduce infection. Please note scarring is expected.

If you develop any redness, swelling, wound opening or discharge please contact your GP immediately who may wish to refer back to us. We strongly recommend a wound swab and bloods for infection screen are taken before treatment with any antibiotics.

Can I have a shower?
Keep the wound dry until it is healed. You may shower/bath as long as the wound is protected. Due to the contour of the neck it may be difficult to hold the dressing in place. In which case it is alright to remove the dressing and leave the steristrips in place and have a shower/bath from below the neck, keeping the wound area dry. You may request additional dressing from the ward nurses or your GP surgery.
When will I be able to drive?
You recommend you drive around two weeks when you feel able to control your vehicle safely including executing an emergency stop. Your surgeon may give you independent advice, please follow their instructions if different from this sheet. Please ensure you check your insurance details. If you are advised to wear a hard collar you will be unable to drive during the duration of treatment.

Will I need to wear a collar?
As a routine practice we do not advise collar use after anterior or posterior cervical surgery. Your consultant may make a decision after your operation to apply one for added support. You will then be given directions on how long you will need to wear it. Some surgeons may ask you to replace it with a soft collar at night or when you are resting in bed.

If you are supplied with a hard collar you must wear it at all times, even whilst bathing and washing your hair. The leaflet supplied with the collar will explain how to change the cushion pads and how to care for your collar and skin. You should wear collars firmly but not excessively tight, as this will make it difficult for you to swallow or breathe. If you find it difficult to raise your arms above your head to fasten the collar at the back, please ask family members or friends for help. You need to maintain a good posture while wearing your collar, carrying your head directly above your shoulders with your chin tucked in and your shoulders relaxed. Try not to rest your chin heavily on the front of the collar as this may cause your skin to become sore. If you have any concerns about your collar please contact the spine NNP.
Where can I obtain a sick certificate?
The discharging nurse can provide you with a certificate for the duration of your hospital stay. You will have to ask your GP for any further certificates.

When will I be able to return to work?
This will depend to some extent on your age, duration of pre-op symptoms, level of fitness, other medical conditions and the nature of your work. Generally, most fit patients make an uncomplicated recovery and return back to light work in two to four weeks. Take regular rest periods. If your work involves heavy manual work then you may need to speak to your consultant or GP, as this may mean that you will not be able to return to work until six to eight weeks. Monitor where you are working to make sure you are not placing unnecessary stress on your neck.
When will I receive a follow-up appointment?

- **Telephone follow up:** Neurosurgical patients will receive a call within two to four weeks following discharge to check on progress and wound healing status. This will give you the opportunity to ask any questions. If you wish to clarify any issues/concerns please feel free to contact them. The spinal NNP will return any messages left on the answer phone at their earliest opportunity. Outside normal working hours, if your concern is of an urgent nature and you have had recent surgery please contact your GP surgery for medical assistance.

- **Outpatients:** Usually an outpatient follow up is made for you according to what your consultant decides is the right time to follow up. This could be six to twelve weeks after discharge. Not everyone will require a follow-up appointment, but if one is offered to you it will arrive in the post from your consultant’s secretary. If you feel there is no need to see the surgeon and you are free from symptoms then please contact the appropriate secretary to cancel your appointment.
Other health professionals involved during your hospital stay

Physiotherapist:
A physiotherapist may see you prior to discharge if you are admitted to the ward in the week. They will assess your mobility, posture and muscle strength and will inform the medical team if they feel you are safe for discharge. The physiotherapist can offer you advice on certain exercises to help maintain or improve your range of movement and strength, depending on the type of surgery you have had. If you have been fitted with a collar to wear for 24 hours a day for more than three weeks or if you have any mobility problems or specific issues with weakness then you will be referred to out-patient physiotherapy. More about self help from the physiotherapist in the exercise section.

Occupational therapist:
Patients who have problems after surgery and are unable to cope with activities of daily living are referred to an occupational therapist in hospital.

The aim of occupational therapy is to optimise independence in everyday activities and for these activities to be performed in a manner conducive after your neck surgery. More about occupational therapy in the ‘activities of daily living’ section.

With elective surgery many of the problems experienced with everyday activities can be addressed prior to admission and should be discussed in NPAC and thus minimise possible delays in your discharge from hospital to home.
Social worker:
To avoid unnecessary extended periods of hospitalisation and to avoid the risk of hospital acquired infections a patient’s social needs are assessed in NPAC. The NPAC nurse may be advised to seek the help of a community social worker prior to admission. This may be by self-referral or via GP. In some areas support may also be available from Voluntary Services e.g. British Red Cross, Age Concern. The nurse on the ward may refer you to a social worker if any new social care needs are identified after your surgery.

Speech and language therapist:
If you experience problems with your swallowing or voice after surgery while you are in hospital the medical team will make a referral to a speech and language therapist. Be sure to highlight any concerns about changes in your swallowing or voice to the medical team prior to and after surgery. The speech and language therapist will assess your voice and swallowing and provide appropriate management. If problems persist further speech and language therapy will be arranged in the community.

Once you have been discharged from hospital, if swallowing/voice problems arise, or you experience chest infections or unexplained weight loss, contact your GP who may make a referral to the community speech and language therapist. If you have breathing difficulties following your operation while in hospital an urgent medical review may be required. Any non-acute breathing problems after discharge from hospital could be seen by your GP.

If before surgery you have further questions about swallowing or voice changes that can occur following cervical spinal surgery please contact the spinal NNP who can provide you with additional information.
Exercises and advice from your physiotherapist

Exercise is a vital part of your rehabilitation following your surgery and will improve your general fitness and wellbeing. It is essential that you regularly get up and walk for short distances to ensure movement of your blood circulation and to prevent future complications. Do continue to progress your walking distances and increase your exercise tolerance over the first few weeks post op.

Guidelines for exercise:

- Swimming – generally after six weeks, when your wound has healed.

- Lifting - avoid heavy lifting (a full kettle) for up to six weeks post surgery and pay careful attention when bending or lifting. Please follow these steps before you start lifting.

- Exercise classes i.e. Gym/Pilates/Tai Chi – inform your instructor about your neck surgery and seek appropriate exercises.

- Contact sports and leisure – discuss with your consultant/NNP who will advise you. Apply back and neck care principles in all sport and leisure pursuits. Gradually increase your activity levels within your own limits. Do not avoid activity but stretch before and after.

Please see separate sheet for exercise instructions.
The following information is for your guidance only. It is important to remember that regularly changing position will help to prevent muscles from tiring and allows your joints to move, which is essential for their nutrition.

**Posture:** Posture is not just a matter of adopting good positions, it is concerned with the way you move as well. Ideally carrying out all necessary activities in a relaxed and efficient way minimises the stresses on your body and saves energy.

**Lying down:** Whether you lay on your back or your side, please use soft pillows made of feather or foam chips so that they conform well to the shape of your head and neck. If you sleep mostly on your sides, the thickness of your pillow should match the width of your shoulder.

**Sitting:** It is important to maintain the hollow in the small of your back while sitting as this will help to ensure a good position for your shoulders, head and neck. You can use a lumbar roll or a small cushion at your beltline to maintain this position, and you should ensure that you sit well back in the chair. Sustained slumping in a chair is not a good position and puts an abnormal strain on your spinal ligaments, joints and discs.

**Walking:** Walking is a good exercise. It promotes fitness, improved circulation and general strength. Physically, if you had no walking restriction before surgery this should remain un-altered.
**Bathing** - when bathing use a non-slip mat in the bath and take care getting in and out of the bath. If you have difficulty with safe bathing while you are awaiting admission to hospital or after surgery, once your stitches have been removed, and you do not have access to a shower you may need to consider strip washing at a sink for a while until your spine’s stability, strength and mobility improve. You may also consider using adaptive bathing equipment (a ‘bath board’ may help if you cannot stand to get into the bath, or if you have an over-bath shower).

A raised seat and/or rails may help if you experience difficulty getting on/off a toilet because of leg weakness.

You can view/try bathing and other adaptive equipment at Living Centres where an occupational therapist can also advise you (by appointment); alternatively you can self refer to a social services occupational therapist or seek advice at local mobility stores.

If you have arm or hand weakness an occupational therapist may, if indicated, also advise on arm or hand exercises to aid arm/hand function. If hand dexterity is affected there are many small aids on the market that can make a difference in carrying out everyday activities. An occupational therapist, Mobility shop or Living Well Centre can advise on these.
While working at a desk there are many factors which can impact on the health of your neck and the rest of the spine e.g. P.C. monitors should be positioned in front of you rather than to the side and the monitor positioned so that the head is held upright or just slightly flexed and the top of the monitor at or slightly below eye level. Use of bi/ varifocals may require alternative positioning of the screen. Desk surfaces and armrests that are too low or high can cause awkward postures (e.g. hunched shoulders) that impact negatively on the health of the neck and rest of the spine; hands, wrists and forearms should be relatively straight, in line and parallel to the floor. When using the telephone hold the receiver rather than placing it on your shoulder. Consider a hands-free set or speakerphone if you use the telephone a lot. For more comprehensive information go online and search ‘desk ergonomics’ e.g. site osha.gov.

**Sex**: You can resume sexual activity when you feel comfortable. You can adopt whatever position you prefer, but we recommend either lying on your side or on your back. Sex and disability helpline (telephone number under support groups at the end) can offer you further advice and counselling if you are having difficulties with sexual relationships because of physical problems.
References and sources of further information

**For Spinal cord Injury patients:** Spinal Injury Association, SIA House, 2 Trueman Place, Oldbrook, Milton Keynes, MK6 2HH. Tel (information / advice): 0800 980 0501; Tel: 0845 678 6633. www.spinal.co.uk [Last accessed March 2011]

**Bladder & Bowel problems:** Duke of Cornwall spinal injuries unit offers outreach service and advice in the community. You may be referred by your physiotherapist, nurse or GP. http://www.spinalinjurycentre.org.uk [Last accessed March 2011]

**Brain and Spine Foundation:** 7 Winchester House, Kennington Park, Cramner Road, SW9 6EJ, Tel: 0808 808 1000 (helpline); Enquiries 020 7793 5900.

For sexual & personal relationships for people with a disability (S.P.O.D): 28 Camden Road, London, N7 OBJ Tel:020 7607 8851

**Motability Scheme:** Warwick House, Roydon Road, Harlow, CM19 5PX. Tel: 0845 456 4566/fax:01279632000/ minicom: 01279632273

**Patient information from Royal college of Surgeons of England**

http://www.rcseng.ac.uk/patient_information

**Motability Scheme:** Warwick House, Roydon Road, Harlow, CM19 5PX. Tel: 0845 456 4566/fax:01279632000/ minicom: 01279632273
Patient information from Royal college of Surgeons of England
http://www.rcseng.ac.uk/patient_information [Last accessed March 2011]

www.allaboutbackandneckpain.com
[Last accessed March 2011]

[Last accessed March 2011]

Diagram (c) EMIS 2010 as distributed at http://www.patient.co.uk/health/Cervical-Spondylosis.htm, used with permission

Adapted from King’s College Hospital information leaflets.

NHS Constitution. Information on your rights and responsibilities. Available at www.nhs.uk/aboutnhs/constitution
If you or the individual you are caring for need support reading this leaflet please ask a member of staff for advice.

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