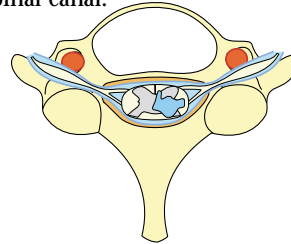


### What is a Syrinx

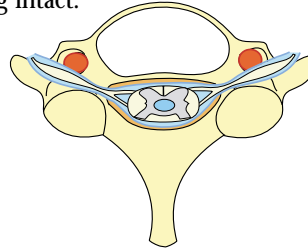
This is a general term for the dilation of the centre of the spinal cord with fluid. This may be due to obstruction to the top of the spinal cord from pressure or inflammation. It may be related to a tumour in the spinal cord.

There are two types

Syringomyelia: This is when the fluid occurs outside the central spinal canal.



Hydromyelia: Dilation of the canal with the lining of the canal staying intact.



### WHAT IS SYRINGOMYELIA ?

This dilatation within the spinal cord occurs as a specific set of symptoms and may be associated with a CHIARI MALFORMATION (see leaflet) or other pathology.

- e.g.
- Spinal cord trauma
  - Spinal tumour
  - Vascular malformation
  - Post infection
  - Spinal cord compression

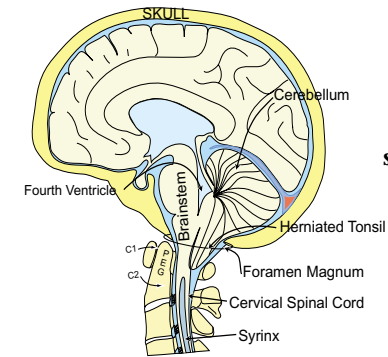
### How does a syrinx form ?

There are different thoughts on this.

It may be that in some cases a blockage forms in the central canal of the spinal cord stopping the normal fluid escaping.

Damage to the spinal cord may cause the drawing into the spinal cord fluid from the outside. this enlarges the cyst cavity.

Blockage around the top of the spinal cord in CHIARI malformation prevents the normal flow of the pulsations of the fluid in the middle of the brain (C.S.F) getting out. This is then forced into the spinal cord central canal, producing rupture and, pushing fluid in the spinal cord.



Brain and Spinal cord cut down the middle showing the Syrinx and Chiari Malformation

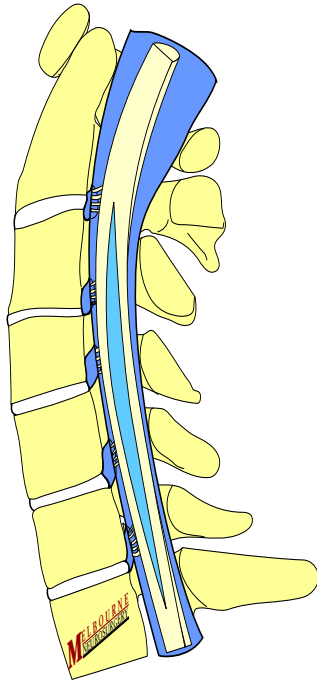
### What symptoms could you have ?

Initially there may be no symptoms, sometimes the syrinx is found on investigation for something else.

There are some symptoms that are typical of cervical syringomyelia.

- i There may be pain in the neck and shoulders.
- ii Sometimes on coughing or sneezing the pain may get worse and any numbness or weakness may deteriorate.
- iii Weakness and clumsiness in the hands.
- iv The hand muscles become thin.

**Spine and Spinal cord cut down the middle showing the Syring**



v There can be loss of sensation of pain (and temperature) in the hands but you will still be able to tell other things about the hands. This may mean that you injure your hands easily.

vi If the syrinx goes into the lower part of the brainstem you may have difficulty in swallowing.

vii Your walking may deteriorate with stiffness in the legs and inability to run.

### **HOW IS THIS DIAGNOSED ?**

It may be difficult for your local doctor to make the diagnosis from the symptoms that you have. There are lots of diagnoses that are possible from your symptoms.

When you have these symptoms he will usually send you to a neurologist or a neurosurgeon for an opinion.

The specialist will examine you and then usually send you for an M.R.I. (Magnetic Resonance Imaging). This produces pictures similar to a CAT scan but they are generated using a magnetic field and not using radiation. This is the best test. It shows the back of the brain and the spinal cord substance.

If you have been seen initially by a Neurologist then he will send you to a neurosurgeon for an opinion as to whether surgical treatment may be appropriate.

### **HOW IS THIS TREATED ?**

This depends on the type and severity of any symptoms and what is felt to be the cause of your symptoms.

If you have a tumour then we will plan to remove it.

If you have infection then we will treat this.

If you have no symptoms and this has been found by accident then nothing will usually need to be done.

If your symptoms have been transient and do not recur then we may just observe for a while.

If your symptoms are from the pressure on the brainstem and there is no syrinx then the posterior fossa is decompressed.

If you have no posterior fossa symptoms and there is a syrinx then the decompression of the posterior fossa will usually treat this.

If you do not have compression at the base of the posterior fossa then decompression of the posterior fossa may still be tried prior to the other option of inserting a tube into the syrinx.

### **IF YOU NEED SURGERY WHAT WILL IT BE ?**

THERE ARE TWO MAIN TYPES OF OPERATION  
The first is the most usual and the second is to directly treat the syrinx if the first does not work.

#### **POSTERIOR FOSSA DECOMPRESSION**

This is where the bone of the foramen magnum is removed from the back and a small part of the upper two cervical vertebra may also be removed. The lining of the brain is opened and a patch is sewn into the defect to allow the whole to expand.

#### **DRAINAGE OF SYRINX**

The syrinx may be opened directly or a small tube may be placed into it to allow the fluid to drain out. This could be drained into the fluid around the spinal cord or to another site.

### **FOR ABOVE PROCEDURES SEE THE RELEVANT PROCEDURE LEAFLET**

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