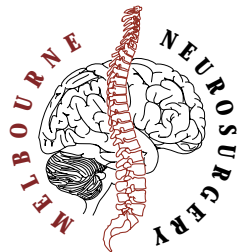


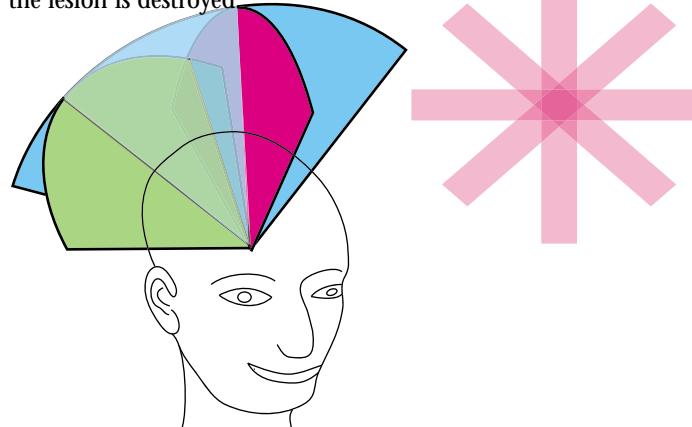
PROCEDURE INFORMATION

STEREOTACTIC RADIOTHERAPY



WHAT IS STEREOTACTIC RADIOTHERAPY ?

RADIOTHERAPY is treatment with MULTIPLE small dose x - ray therapy that when performed stereotactically destroys a small abnormal area in the centre of the brain. It works by using overlapping moving pencil beams of radiation to produce a high dose at the point of treatment with very low dose around this. This can be likened to overlapping coats of paint. When this is done multiple times the lesion is destroyed.



Stereotaxy is the fitting of a relocatable frame to the head so that we can consistently find the lesion accurately (with the aid of special imaging) for each treatment.

WHAT CAN THIS BE USED FOR ?

VASCULAR MALFORMATIONS

Arterio - Venous malformations

TUMOURS IN THE BRAIN

Meningiomas

Acoustic Neuromas

Pituitary Tumours

HOW LONG WILL YOU BE IN HOSPITAL ?

The procedure is done as a day case. It is always done at Peter MacCallum Cancer Institute in East Melbourne. You will come initially for fitting of the frame. You will then come back as a day patient each time that we need to treat you. We will need any X - rays that you have.

HOW IS IT PERFORMED ?



Using a special dental mouthpiece and an occipital pad we attach a lightweight metal frame to your head, it straps over the top of the head to keep it in position.

We then check the position of the frame before we do the test to localise the lesion. A clear dome is temporarily fitted to do this. This is repeated during the day and is to check that the frame does not move while you are waiting to have the treatment.



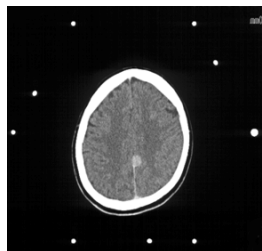
You will then have the test to localise the lesion. This is only done prior to the first treatment to allow us to plan your treatment. This may be an angiogram for a vascular lesion or a CAT scan if it is a tumour. Sometimes for a vascular lesion we will use the CAT scan and your MRI scan to work out the specifics of the treatment.

You will be given intravenous contrast prior to the CAT scan. The frame is bolted to the CAT scan table so that the images are accurate. Prior to doing the scan we check the position of the frame again with the clear dome and the gold depth gauge.

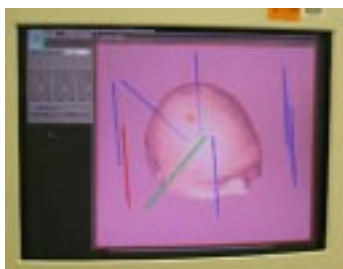
After the scan you will be able to go home while we plan the treatment. You will come back for each treatment.

WHAT DO WE DO ?

The information from the CAT scan is sent to our computer. We then produce a picture that shows us where the lesion is in the brain relative to the scalp and the frame you are wearing. The dots around the CAT scan image are used to locate the lesion.



We then decide on the direction that we are going to bring in the X - rays so that we avoid all the important parts of the brain. The computer will help locate these inside the head.



Once the planning is finished we will get you back and prior to treatment we will check the position of the frame with the clear dome and sometimes an X-ray. After this you go to the room where the treatment occurs.

WHAT HAPPENS NEXT ?



The frame is fixed to the treatment table so that your head cannot move. This is because we want the accuracy of the treatment down to the millimeter. The frame position is again checked with the clear dome to make sure it has not moved. The treatment then occurs with the machine moving slowly around you. You will be repositioned for each beam (often 3 or 4). The total treatment time is about 45 min. When finished we take the frame off and you can go home.

It is important to have some-one to take you home.

WHAT HAPPENS WHEN YOU GO HOME ?

The steroid dose is reduced slowly when the course finishes. You will be reviewed at 4 - 6 weeks post treatment. You should not have any problems but sometimes a weakness may develop. You need to tell us of this. You will usually have follow up imaging by your doctor.

WHAT ARE THE RISKS?

Discuss these and others with your surgeon as they relate specifically to the lesion treated

Stroke
Seizure
Incomplete response to the radiation.
Brain Swelling from the radiation treatment

WHAT YOU SHOULD NOTIFY YOUR DOCTOR OF AFTER RADIOTHERAPY

Increasing Headache
Fitting
Weakness or numbness
Drowsiness

HOW LONG WILL IT TAKE FOR THE LESION TO RESPOND ?

It depends on the type of lesion. If it is a meningioma we expect it to stop growing or shrink within the next 12 months. If it is an arteriovenous malformation then it can take up to two years to respond depending on its size.

WILL YOUR SYMPTOMS GET BETTER ?

This depends on the type of lesion and the treatment given, you should ask about this.

YOU WILL BE ASKED TO SIGN A CONSENT FORM TO SAY THAT YOU UNDERSTAND THE RISKS . IF YOU ARE NOT SURE ASK BEFORE YOU SIGN.

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