

Intrathecal Chemotherapy

For patients at Alvord Brain Tumor Center

This handout explains a type of chemotherapy that injects anti-cancer drugs into the area around your spinal cord.

What is intrathecal chemotherapy?

Intrathecal chemotherapy (IT chemo) is a type of cancer treatment. During IT chemo, we inject anti-cancer drugs into your cerebrospinal fluid (CSF). CSF is a clear, protective fluid that surrounds and flows through the brain and spinal cord.

How is IT chemo given?

There are 2 ways to give IT chemo:

- Through a device called an Ommaya reservoir
- By lumbar puncture

What is an Ommaya reservoir?

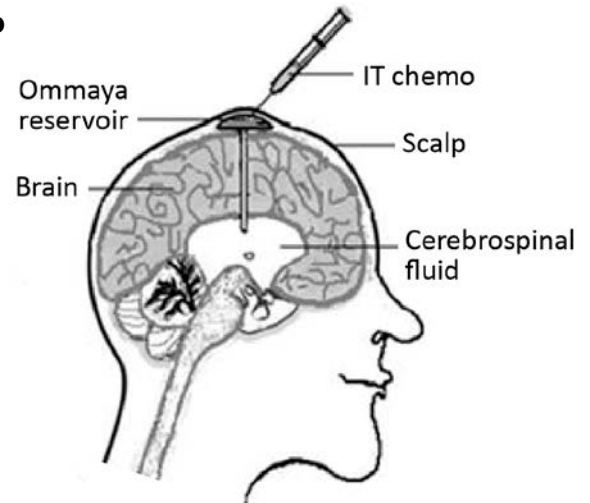
An Ommaya reservoir is a dome-shaped device. It is placed under the scalp on the top of your head during surgery.

The reservoir is attached to a catheter that is inserted within your brain. The catheter is directed into a ventricle, an open space in your brain where CSF flows.

For your treatment, your provider will insert a needle into the middle of the device and inject your chemo drug into the reservoir. The drug travels through a catheter and into your CSF.

What do I need to know about the procedure?

- You **must** have a blood draw before the procedure. We want to make sure you are not at high risk for bleeding.



Chemotherapy medicine can be injected into the CSF through an Ommaya reservoir placed on the top of your head.

Your Chemo Drugs

You will be receiving these chemotherapy drugs during your IT chemo treatment:

- Methotrexate
- Cytarabine
- Etoposide
- Rituximab
- Thiotepa
- Topotecan
- Trastuzumab

Others (please specify):

- _____
- _____
- _____

- You will be seated in an upright position.
- Your provider will access the Ommaya reservoir using a *sterile* (germ-free) method. This means that:
 - We will need to shave your head over and around where the reservoir is located. We will use a razor to do this.
 - We will then clean that area of your scalp with an antiseptic.
 - Your provider will then insert a sterile needle into the reservoir.
- The procedure takes 20 to 30 minutes.

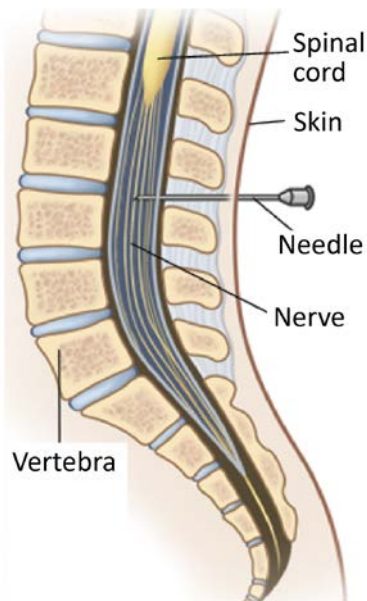
What are the side effects of the chemo drugs I will receive through the reservoir?

Common side effects include:

- Pain or tenderness where the needle was inserted
- Nausea or vomiting
- Headache

Call your nurse **right away** if you have:

- A stiff neck
- Excessive fatigue (feeling very very tired)
- A lot of vomiting
- Fever
- Stroke-like symptoms (called *leukoencephalopathy*):
 - Clumsiness or loss of coordination
 - Problems walking
 - Part of your face drooping
 - Loss of vision
 - Personality changes
 - Trouble speaking
 - Weak muscles



During a lumbar puncture, a needle is inserted between vertebrae in your lower back.

What is a lumbar puncture?

A *lumbar puncture* is done in your lower back area (*lumbar region*). During a lumbar puncture, a needle is inserted between 2 lumbar bones (vertebrae) in your back. When using a lumbar puncture for IT chemo, the drug is injected into between those bones and into your CSF.

What do I need to know about the procedure?

- You **must** have a blood draw before the procedure. We will check to make sure that you are not at a high risk for bleeding during the procedure.
- For this procedure, you will be in 1 of these positions:
 - Lying on your side, with your knees drawn up to your stomach.
 - Sitting with your arms folded in front of you, resting on a chair or other support. You will rest your head on your arms.
- Your provider will clean the skin on your lower back with an antiseptic and give you a local *anesthetic* (numbing agent). Once the area of your back is numb, your provider will insert a needle into your spine and inject the chemo drug into your CSF.
- It is very important that you stay still during the procedure. This means you will need to be as still as you can for 15 to 30 minutes.
- After the procedure, we will place a small dressing over the injection site. Leave this dressing in place for 24 hours.
- You may need to lie flat on your back for up to 30 minutes after the procedure to lower your risk of getting a headache.

What are the side effects of a lumbar puncture?

Common side effects include:

- Headaches (typically resolved by lying down)
- Pain at injection site
- Nausea and vomiting
- Dizziness
- Short-term shooting pains down your legs

When to Call

Call your nurse **right away** if you have:

- Severe or ongoing headache
- Drainage at the injection site
- Pain or numbness that does not go away
- Fever, when taken by mouth:
 - 100.4° to 100.8°F (38° to 38.2°C) for 1 hour or longer
 - 100.9°F (38.3°C) or higher
- Fever, when taken under the arm:
 - 99.5° to 99.9°F (37.5° to 37.7° C) for 1 hour or longer
 - 100°F (37.8°C) or higher

Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

To talk with a nurse:

Weekdays from 8 a.m. to 5 p.m., call 206.598.2282 and select option #2.

After hours and on weekends and holidays, call our Community Care Line at 206.598.3300.