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It is important that you follow the instructions for taking melphalan as prescribed. If you are sick shortly after taking it or if you miss a dose, you should contact your doctor immediately for advice before taking the next dose.

Other information about melphalan

Women must not take melphalan if they are pregnant, and must not become pregnant whilst taking melphalan, as it is expected to be harmful to an unborn baby. This means you must use effective methods of contraception while on treatment and for up to a year after treatment has finished if you are a woman of childbearing potential or if you are a man and your partner is a woman of child bearing potential.

We appreciate your feedback

Please fill in a short online survey about our patient information at myeloma.org.uk/pifeedback or email any comments to myelomauk@myeloma.org.uk

For a list of references used to develop our resources, visit myeloma.org.uk/references

We're here for everything a diagnosis of myeloma brings

Get in touch to find out more about how we can support you

Call the Myeloma Infoline on ☎ 0800 980 3332

Email Ask the Nurse at ✉ AskTheNurse@myeloma.org.uk

Visit our website at 🌐 myeloma.org.uk

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What is melphalan?

Melphalan is a chemotherapy drug used in the treatment of myeloma. It belongs to a class of chemotherapy drugs called alkylating agents.

How does it work?

Melphalan works by damaging the DNA within myeloma cells. Damaging the DNA stops the DNA within myeloma cells. Melphalan works by damaging the DNA of myeloma cells multiplying and resulting in their death.

Possible side effects

Melphalan has a number of possible side effects which can vary considerably from patient to patient. It is important to report any side effects to your doctor or nurse as soon as possible so they can be treated or managed promptly.

Side effects of melphalan are more common in the parts of the body where there are rapidly dividing cells, i.e. the hair follicles, bone marrow, skin and the lining of the mouth and digestive tract.

Nausea, vomiting and appetite loss

Melphalan can cause nausea and/or vomiting. This can begin 2 – 3 hours after taking the treatment and may last for up to 24 hours. You may be given anti-sickness (anti-emetic) drugs to prevent or reduce nausea and vomiting. You must take them as prescribed rather than waiting until you feel sick. There are several types of anti-emetic available and if the one you have is not effective, ask your doctor to try another.

You should keep drinking to avoid dehydration, especially if you have been vomiting. If vomiting is prolonged and you can’t keep anything down, you should contact your doctor or nurse for advice.

In most cases, diarrhoea is temporary and your normal bowel pattern should return once treatment has finished. You should maintain a good fluid intake to prevent dehydration and a balanced diet low in highly spiced or fatty foods. You may be prescribed anti-diarrhoeal medications and if necessary, you can be given supportive treatment to help with these side effects and to boost your blood cell counts.

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Low blood counts

Melphalan can decrease the number of red blood cells, white blood cells and platelets in your blood. This can cause anaemia and fatigue, as well as making you more susceptible to infection and increasing your risk of bleeding. If necessary, you can be given supportive treatment to help with these side effects and to boost your blood cell counts.

Hair thinning or loss

You may have some thinning of your hair but it is unlikely that you will lose it completely. Thinning or loss of your hair will usually start within two to four weeks of your first dose of melphalan. You may also have thinning or loss of eyelashes, eyebrows and other body hair.

Hair thinning or loss is nearly always only temporary and your hair should normally start to grow back a month or so after finishing treatment. During this time, you should try to avoid hair dyes and use a very mild shampoo to avoid scalp irritation.

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Effects on fertility

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Sometimes, melphalan can alter your sense of taste and smell and this may contribute to your loss of appetite, nausea and/or vomiting. This is usually temporary and the taste changes should disappear when you have finished your treatment.

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Mechanism of action of melphalan

1 × parent cell

DNA

all chromosomes duplicate

chromosomes separate

MELPHALAN

1 × parent cell

from dividing

2 × daughter cells

(23 pairs)

46

1 × parent cell

FURTHER DIVISION

DIVIDES

CELL

Daughter cells

23 pairs each

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It is important you maintain good oral hygiene if you have mucositis. Your nurse will show you how to care for your mouth and how to keep it clean with mouthwashes and brushes or foam sticks. Your doctor can prescribe painkillers which should help to ease any pain.

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Sore mouth and throat

Melphalan can sometimes cause a sore mouth and throat (oral mucositis) which can result in mouth ulcers and mouth infections. If this occurs, it can sometimes make eating, drinking and swallowing difficult. You may need intravenous fluids and/or nutritional supplements until you are able to resume eating and drinking normally.

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A high dose of intravenous melphalan is also used as part of a treatment procedure in myeloma called stem cell transplantation.

The tablets should be swallowed whole with a glass of water, preferably on an empty stomach. If you suffer from indigestion or stomach irritation you can take the tablets with food.

Unless your doctor instructs you otherwise, you should drink plenty of fluids. This helps the kidneys to remove the drug from your body and avoid some of the side effects.

Your doctor will measure your height and weight to calculate the correct dose of melphalan for you.

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