

# Immunotherapy and the side effects

## What is Immunotherapy and how does it work?

Immunotherapy is a new advancement in cancer treatment that uses the patient's own immune system to fight cancer. Your immune system is your body's natural defense that fights against infections and diseases.

Our immune system is equipped with an army of cells including T cells, that fight foreign invaders like cancer.

Immunotherapies target and activate these T cells and can teach your immune system what cancer looks like so that it can best fight off cancer cells.

Immunotherapy can be used to treat many different kinds of cancer including melanoma, lung cancer, kidney cancers, bladder cancer and others.

## What is the difference between Immunotherapy and Chemotherapy? (0:59)

Immunotherapy treatment is a new cancer treatment that is not the same as chemotherapy but is often confused with chemotherapy, but how they work inside your body is very different.

More importantly the side effects can be very different:

- Chemotherapy targets cancer cells directly and can attack both cancer cells and our own healthy cells and this can result in a variety of side effects.
- Immunotherapy medications on the other hand work by boosting your body's own immune system so that your immune system will fight the cancer. By doing so your immune system works harder than normal, and it may affect your healthy cells, and organs, and cause what is called immune related side effects. These are unique side effects that can affect any organ in your body.

## What are the symptoms and side effects of Immunotherapy (01:49)

All patients are different and not everyone will experience the same side effects. There are side effects that you should pay close attention to however, and those are side effects that are outside the way you normally feel.

Some common side effects from immunotherapy are:

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- Flu-like symptoms that can include
  - a mild fever
  - chills, aches and pains
- Fatigue
- Skin rash and itchy skin

Another common immune related side effect it's called **vitiligo**. This side effect seems to occur more often in melanoma patients. Vitiligo is when your skin colour changes or it gets blotchy. It can even cause changes to the colour or thickness of your hair, eyelashes, eyebrows and facial hair. Sometimes these changes can be permanent.

Other less common but serious skin side effects to watch for are:

- Worsening skin rash
- Sores on your skin or mouth
- Blistering or peeling skin

If any of these occur, contact your healthcare professional right away.

If you develop shortness of breath or cough, it could mean inflammation of the lungs also known as pneumonitis and symptoms may include:

- Trouble breathing or catching your breath
- Fever
- New or worsening cough and
- Chest pain

Immunotherapy can also cause intestinal problems which could mean inflammation of your intestines also known as colitis.

Some of the symptoms that are associated with colitis are:

- Diarrhea
- More bowel movements than usual
- Blood in your stools or dark stools
- Abdominal pain or tenderness
- Cramps

Some patients will also have an enlarged or inflamed liver, something that we refer to as hepatitis And this may cause:

- Abdominal pain
- Fever
- Nausea and vomiting

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- Yellowing of your skin or eyes
- Darker urine
- Hepatitis is more often detected on your blood tests, and you might not have any symptoms at all.

Hormonal or gland problems affecting organs like the thyroid, adrenal glands, pituitary gland, pancreas.

Usually these issues are found in the blood work your doctor will order while you are on the immune therapy. These conditions are typically not reversible.

Sometimes you may also have symptoms like:

- Feeling very thirsty
- Frequent urination
- Dizziness
- Feeling faint
- Muscle aches
- Hair loss
- Rapid heart beat
- Headache
- Weight changes
- Extreme fatigue
- Changes in eyesight

There are other rare side effects that can affect your:

- Eyes
- Nerves
- Brain
- Muscles
- Heart

## **Combination Therapy (4:50)**

Some patients will be on combination immunotherapy, this means that you are receiving treatment with more than one immunotherapy drug. If you are on a combination of immunotherapy drugs the side effects are the same, but are much more common, and can be more severe.

Side effects can happen at any time even years after the treatment has finished.

There are effective treatments for many of the side effects should they happen and this is why it is important to identify and treat them early.

It is important that you speak to your healthcare team if you are experiencing any of these symptoms. Early recognition and treatment is the key.

## Going to the emergency room

When going to an ER or a hospital, it's important to know that not every hospital may be familiar with your cancer drug treatment.

Immunotherapy treatment is very new and not all health professionals are familiar with it or its side effects.

We recommend you bring the name of the drug you are receiving as well as the name of your Oncologist

## Final thoughts (05:55)

Lastly, if you are receiving immunotherapy treatment and you or your partner are planning a pregnancy, it is important that you discuss this with your health care team. Do not get pregnant during Immunotherapy; this drug treatment may harm the baby. Consult your doctor to find out when it will be safe to become pregnant

Patients on Immunotherapy treatment should avoid live vaccines.

All vaccinations should be considered only after careful assessment from your healthcare provider.

***Remember: Call if you are experiencing any new symptoms. Early recognition and treatment is the key***