

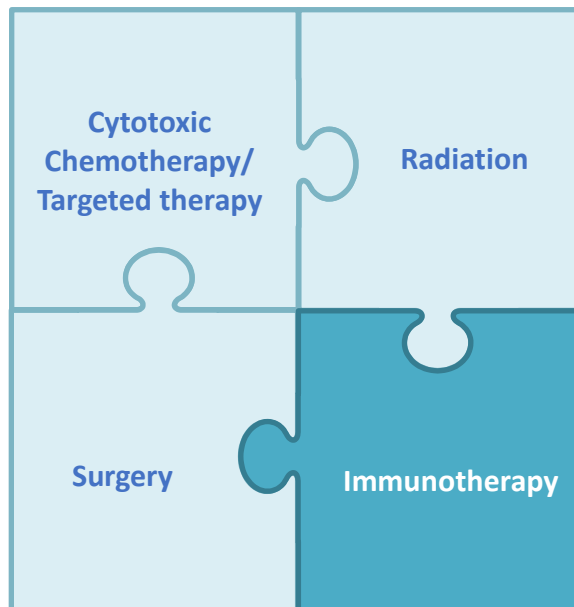
Immunotherapy

What is immunotherapy?

Immunotherapy is a type of cancer treatment that uses your own body's immune system to fight cancer. It is given intravenously (through your vein). Your doctor will decide how often you receive it.

Immunotherapy is **NOT** chemotherapy:

- Some side effects of Immunotherapy may be similar to those of chemotherapy, but they are managed differently.
- It is important to ensure that any side effects are reported to your Cancer Team immediately. Untreated side effects may be life threatening.
- Treating side effects early may allow your Immunotherapy treatments to continue.
- It can take time for your tumour to respond to your treatment as your immune system works hard behind the scenes to fight your cancer. This can also mean that your tumour may appear larger before it gets smaller. This is a normal response to Immunotherapy.



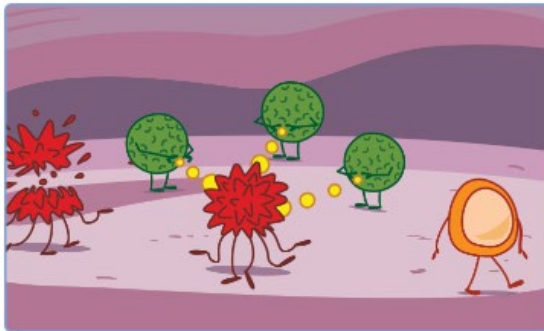
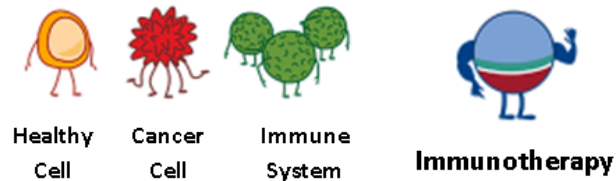
Canadian Association of Nurses in Oncology, 2017.

How does immunotherapy work?

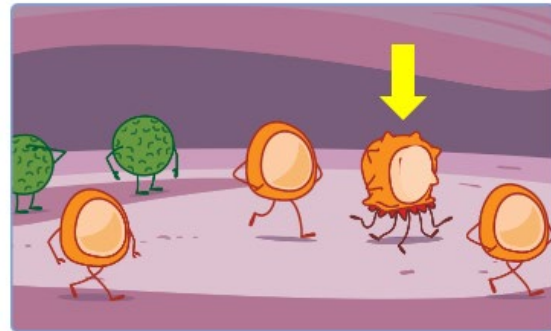
Cancer cells find ways to protect themselves from your immune system. Immunotherapy can:



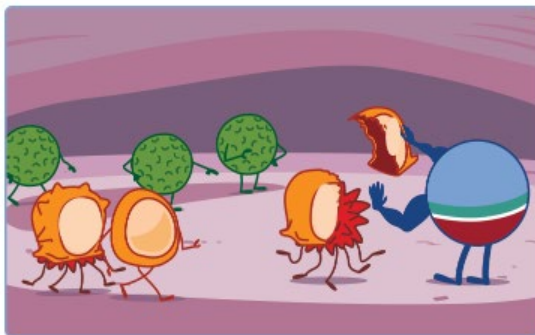
- ✓ mark or 'unhide' cancer cells so the body knows they are harmful and should be attacked
- ✓ boost your immune system making it stronger to fight against the cancer cells



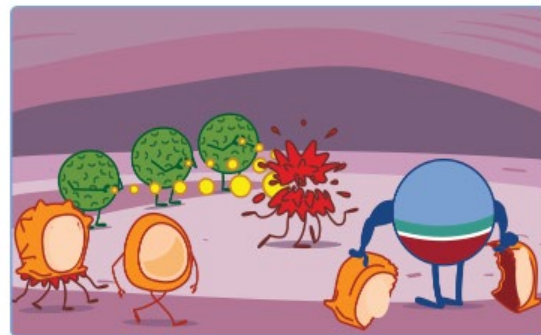
When cancer cells appear in your body, your immune system works to recognize and attack them.



Cancer cells find ways to disguise themselves from the immune system.



Immunotherapy drugs can remove the disguise ...



... allowing the immune system to find and attack the cancer cells.

<https://www.imfinzi.com/patient/bladder-cancer/imfinzi/how-imfinzi-immunotherapy-works.html>

Possible side effects

It is possible that Immunotherapy can cause your immune system to become confused. If this happens, your healthy cells may be affected and become inflamed. This inflammation can happen anywhere in your body. Side effects from immunotherapy can occur at any time during your treatment, even several months after treatment has stopped.

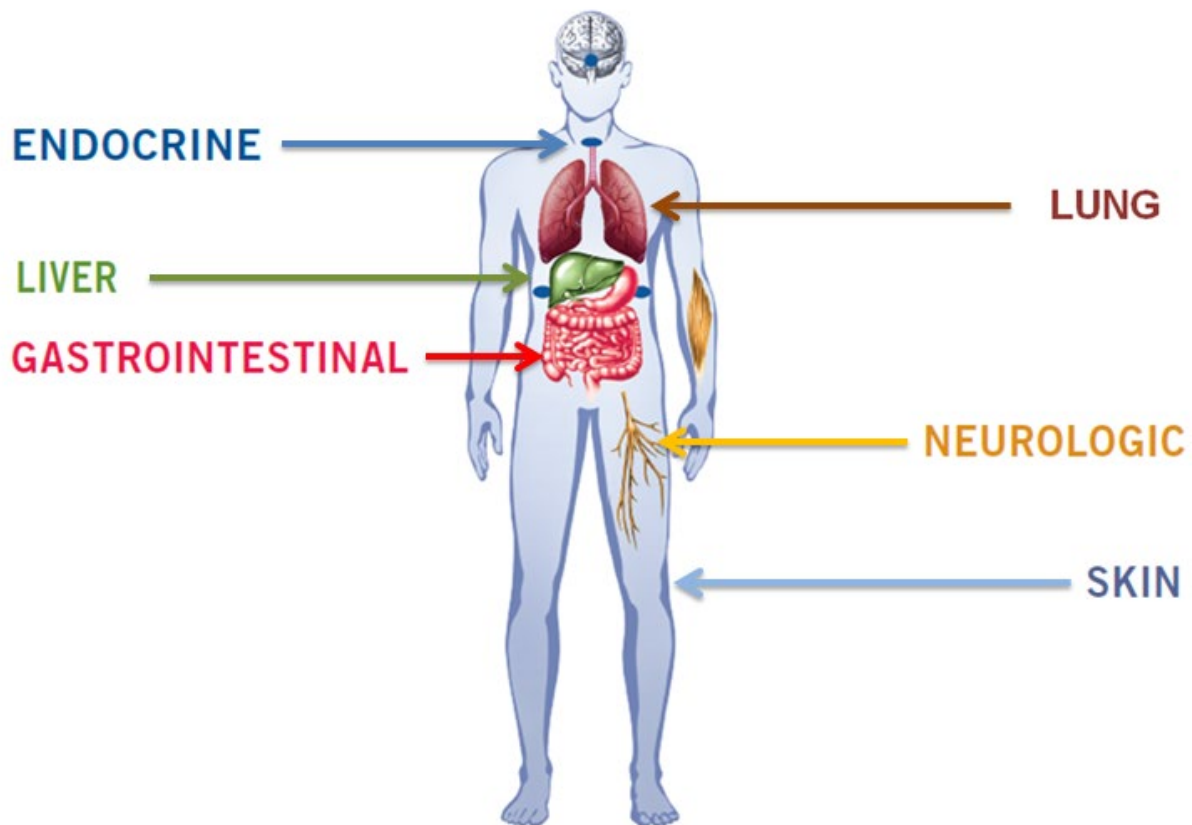
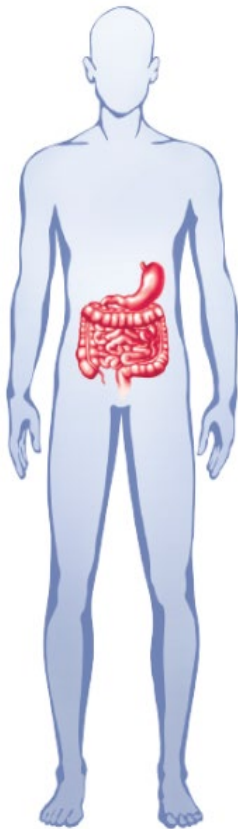


Image adapted from Bristol-Myers Squibb, 2011.

Possible side effects

Gastrointestinal system (stomach and bowels)

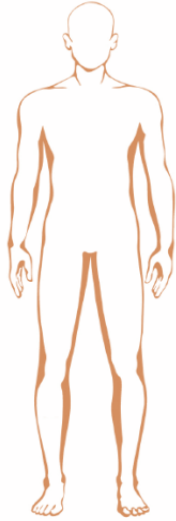
- Diarrhea (loose stools) or more bowel movements than usual.
- Blood in your stools or dark, tarry, sticky stools.
- Severe abdominal (stomach) pain or tenderness.



- If you develop diarrhea, call the Juravinski Cancer Centre.
- If you cannot contact your Cancer Care Team and you have 5 or more stools/bowel movements in 24 hours, go to the Emergency Department.
- **DO NOT** take anti-diarrhea medication without direction from your Cancer Care Team.

Skin

- Itching
- Rash
- Skin blistering or peeling

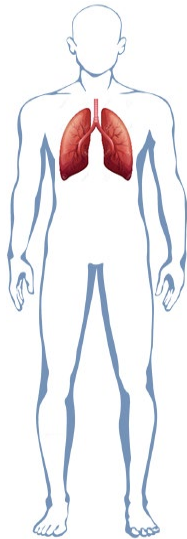


- **If you develop a new rash, contact your cancer care team.**
- **If you have a severe or painful rash, blistering or peeling skin, seek immediate medical attention.**

Lungs

Changes in your breathing are uncommon but can be serious:

- New or worsening cough
- Chest pain
- Shortness of breath



- **If you develop worsening cough or shortness of breath, call the Juravinski Cancer Centre.**
- **For chest pains or sudden severe shortness of breath, call 911.**

Endocrine (hormonal glands)

Side effects can vary depending on the area of your body that is affected.



Contact the Juravinski Cancer Centre if you experience any of the following symptoms:

- **extreme tiredness (fatigue)**
- **weight gain or weight loss**
- **weakness, dizziness, or fainting**
- **changes in mood or behaviour (irritability, forgetfulness)**
- **hair loss**
- **cold or heat sensitivity**
- **extreme thirst or excessive urination (pee)**
- **headache that will not go away or unusual headache**

Other symptoms

Immunotherapy can cause symptoms in any part of the body. If you develop any symptoms, even if not mentioned in this handout, contact the Juravinski Cancer Centre:

- redness or irritation of the eye
- eye pain or blurry vision
- yellowing of your skin or the whites of your eyes
- severe nausea or vomiting
- pain on the right side of your abdomen (stomach)
- drowsiness
- dark urine (tea coloured)
- bleeding or bruising more easily than normal
- feeling less hungry than usual (loss of appetite)
- decrease in the amount of urine
- blood in your urine
- swelling in your ankles

Managing side effects

- It is important to notify your Cancer Care Team as soon as possible if you notice any changes in your body. Untreated side effects may be life threatening, and may result in your Immunotherapy treatment being discontinued.
- **Do not** treat your side effects without direction from your Cancer Care Team – please call the Juravinski Cancer Centre.
- Your oncologist will decide the best way to manage your symptoms.
- In case of emergencies, please go to the nearest Emergency Department and present your Immunotherapy Wallet Card.

Sex and pregnancy

The effects of immunotherapy during pregnancy are not known; however, immunotherapy may cause harm to the baby. Both men and women receiving immunotherapy should:

- Use two methods of birth control (one should be a condom) during treatment and for 6 months after the last dose of Immunotherapy.

Breastfeeding is not recommended while receiving immunotherapy. Please be sure to have all of your questions addressed by your health care team.

Frequently asked questions

- **What effect will Immunotherapy have on my other medications?**

It is important for your Cancer Care Team to be aware of any other medications you are taking or are prescribed. They will determine if they are safe to take with your Immunotherapy. Medications like prednisone or dexamethasone can prevent immunotherapy from working, but may be used if you have side effects from the immunotherapy.

- **Can I take antibiotics?**

Yes, it is safe to take antibiotics. Tell the health care provider that you are on Immunotherapy and present your wallet card. Notify your Cancer Care Team that you are on antibiotics.

- **Can I take vitamin and herbal supplements?**

It is important for your Cancer Care Team to be aware of any vitamins or herbal supplements you are (or plan on) taking. They will help you decide if they are safe to take.

- **Can I receive vaccinations/immunizations?**

Ask your Cancer Care Team about vaccinations before receiving them.

- **Can I go on vacation?**

Please discuss your vacation plans with your Cancer Care Team before you book any plans. Please carry your Immunotherapy Wallet Card with you on any trips.

- **Can I drink alcohol?**

In general, alcohol consumption should be kept to a minimum while on Immunotherapy. Please bring any questions regarding alcohol consumption to the attention of your Cancer Care Team.

- **Can I drive and/or operate machinery?**
In general, it is safe to drive while on Immunotherapy; however, fatigue may hinder your ability to safely do so.
 - **Can I have my hair dyed?**
Yes. However, if you develop a skin reaction during your treatment, it is possible that hair dye may aggravate this. Please check with your Cancer Care Team with any concerns.
 - **Can I hug and kiss loved ones while on Immunotherapy?**
Yes, it is safe to hug or kiss loved ones while on Immunotherapy.
 - **How long will I be on treatment?**
Length of treatment can vary from person to person. Please check with your Cancer Care Team.
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Juravinski Cancer Centre

Call: 905-387-9495

Monday to Friday
9:00 am to 4:00 pm

Urgent problems after 4:00 p.m. or on weekends

If you have an urgent problem, please call your family doctor or go directly to the nearest Emergency Department or urgent care centre.

Emergency situations

- Call 911 for emergencies.
- Tell emergency staff that you are on Immunotherapy cancer treatment and present your Immunotherapy Wallet Card.
- Tell the emergency doctor to contact your oncologist (cancer doctor) about your symptoms and care.

Important information

- Be sure to carry your Immunotherapy Wallet Card with you at all times.
- Give the Immunotherapy Wallet Card to any other health care providers you see to make them aware of your treatment.



**Important
Information**

Questions/notes:



Information adapted from:

Collaborative working group from the Hamilton Haldimand Niagara Brant Local Health Integration Network
Bristol-Myers Squibb, 2011. *Yervoy (ipilimumab): Immune-mediated Adverse Reaction Management Guide*.
<http://www.cancer.gov/about-cancer/treatment/types/immunotherapy>
CANO, 2017. *Immuno-Oncology Essentials for Oncology Nurses. Integrating I-O Best Practice into Patient Care*.
<http://keytruda.co.uk/patient-pages/your-keytruda-treatment>
Walker Family Cancer Centre immunotherapy Booklet, 2018



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