Immunotherapy for Cancer

What is Immunotherapy and how does it work?

Immunotherapy is a kind of cancer treatment that turns on your body’s own immune system to kill cancer cells. This type of treatment may be given alone or with other cancer treatments.

Your nurse or pharmacist will put a check (√) in the box by the type of immunotherapy you will be given:

- atezolizumab (Tecentriq)
- avelumab (Bavencio)
- durvalumab (Imfinzi)
- ipilimumab (Yervoy)
- nivolumab (Opdivo)
- pembrolizumab (Keytruda)
- cemiplimab (Libtayo)

What should I tell my doctor before I start this treatment?

Talk to your doctor about the following:

- If you have ever had chemotherapy or anti-cancer treatment and the names of the medicines you were given.
- If you have ever had an autoimmune disease, transplant, or problems with your thyroid, kidney, bowel, liver or lungs.
- If you are pregnant or plan to get pregnant. Your doctor will talk with you about birth control when you take this medicine.
- If you are breastfeeding.
- If you have been told that you need to get a vaccination.
• All medicines/pills that you take, including:
  ▶ Medicines ordered by any of your doctors (especially steroids such as prednisone or dexamethasone)
  ▶ Herbs
  ▶ Vitamins
  ▶ Over-the-counter medicines

Should I eat or drink before my treatment?
It is best to eat a small meal before getting treatment. Drink 8 to 10 cups of non-caffeinated fluid each day to stay hydrated. If you have been told to limit fluids, check with your doctor about how much you can drink.

How will my treatment be given?
Immunotherapy treatment can be given in different ways. Sometimes medicines are given before your treatment starts to help reduce side effects. Immunotherapy is given directly into your blood stream through a tube (IV line) placed in your arm or chest. The treatment takes between 30 to 90 minutes and is given every 2 or 3 weeks. Your treatment dose may be fixed or may be decided based on your body weight.

What are the side effects of this treatment?
Every person responds differently to treatment. You may not have any or only some of these side effects.
Some of the most common side effects with immunotherapy are:
• Infusion reaction – shortness of breath, dizziness, rash, chills, fever, and/or pain
• Flu-like symptoms – fatigue, fever, less appetite, and/or nausea
• Muscle or joint pain
• Diarrhea or constipation
• Rash or itching
• Swelling
• Infection

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Less common, but more serious side effects may include inflammation of the following parts of the body. The signs of inflammation have been listed by each.

- Lungs – shortness of breath, cough, chest pain
- Liver – severe stomach pain, nausea/vomiting, yellow skin or eyes
- Colon – severe diarrhea, blood in your stool
- Kidney – a decrease in your amount of urine
- Adrenal or thyroid gland – severe fatigue or headaches
- Pancreas – high blood sugars or diabetes
- Skin – severe rash
- Nervous system – numbness or tingling in your hands or feet, severe muscle weakness
- Eyes – changes in vision

Ask your doctor, pharmacist or nurse for more information about the side effects that may be caused by the type of immunotherapy treatment you will be given.

You may find it helpful to watch The James Patient Education videos at [http://cancer.osu.edu/patientedvideos](http://cancer.osu.edu/patientedvideos) for tips on how to manage different treatment side effects.

### When should I call my doctor?

You should call your doctor right away if you have any of the following problems:

- Fever of 100.4 degrees Fahrenheit (38 degrees Celsius) or higher
  
  **A fever can be life threatening if not treated. Your doctor may ask you to go to the hospital.**

- Signs of infection such as a loose cough, sore throat, chills or burning when you urinate
- Diarrhea that happens more than 4 times in 24 hours
- Nausea that makes you unable to eat or drink, even after you have taken your anti-nausea medicine
- Your eyes or skin have a yellow color
- Severe fatigue that makes it hard to get out of bed
- Shortness of breath, chest pain or problems breathing
- Any other signs of the less common, but more serious side effects that can be caused by this treatment.

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