

Vaccination Advice for Patients on Systemic Anti-Cancer Therapies

Information for patients having
chemotherapy, immunotherapy,
targeted treatments or high
dose steroids as cancer
treatments



This leaflet aims to provide you with information and advice about vaccinations including the flu vaccination ('flu jab') if you are on, or have had, treatment for cancer using chemotherapy, targeted treatments, immunotherapy or courses of high dose steroids.

The immune system

Your immune system protects your body against infection and diseases. It recognises the cells that belong to your body and tries to get rid of anything that shouldn't be there in case it causes you harm. This includes germs (bacteria, viruses and parasites) and toxins. It also helps to destroy any of your cells that are old, damaged or have become abnormal.

There are different parts of your immune system, which work in different ways. In particular, you have 'innate immunity', which you are born with, and 'acquired immunity', which develops throughout your life as you get exposed to infections or vaccinations. Special immune cells 'remember' the infections you have had or any vaccinations so that your body can produce lots of immune cells very quickly if you are exposed to the infection in the future. This reduces the chance of you becoming unwell again.

Why is vaccination important when on anti-cancer therapies?

Your resistance to infection can be low at times if you are having treatment for cancer with chemotherapy, immunotherapy, targeted treatments or courses of high dose steroids. It's important to make sure you have had all your routine vaccinations and should tell your Doctor if you have missed any vaccinations.

In certain cancers your only treatment might be a hormone based therapy such as Tamoxifen or Goserelin. In this case you can continue to have all vaccinations without restrictions.

What is immunisation?

Immunisation is the word used to describe the way we use vaccines to protect patients against certain types of illnesses. Vaccines aim to stimulate the body to make immune cells to work against the infection if you come into contact with it in the future.

Types of vaccines

There are two main types of vaccines. One type is known as **live vaccines** whilst the other type is **inactivated (non- live) vaccines**. The healthcare professional offering you the vaccine will be able to tell you which type it is.

Live vaccines

Live vaccines contain a very weak version of the illness they are vaccinating you against. If your immune system is not fully functioning having a live vaccine could make you unwell.

Live vaccines should be avoided whilst you are receiving your anti-cancer therapy, and for at least six months after treatment has finished.

If you have had treatment with a drug called Rituximab, Alemtuzumab or Obinutuzumab live vaccines should be avoided for **12 months**.

If you have had a bone marrow transplant, live vaccines should be avoided for **two years**.

If you have Myeloma or Chronic Lymphocytic Leukaemia you should avoid live vaccines **for life**.

Live vaccines include:

- Measles, mumps, rubella (MMR combined vaccine)
- Rotavirus
- Chickenpox
- Yellow fever
- BCG
- Shingles
- Oral Typhoid Vaccine
- Flu Vaccine **administered as a nasal spray**.

Inactivated (non-live) vaccines

These contain infections that have been killed or damaged so they are not able to make you unwell with the infection. They are however, still able to stimulate the body to make immune cells to protect you against the infection if you come in contact with it in the future.

Inactivated (non-live) vaccines work best if they are given at least two weeks before starting cancer treatment although this is not always possible. These vaccines are however safe to have whilst on your treatment.

Inactivated vaccines include:

- Flu Vaccine as an injection
- Whooping Cough
- Pneumococcal Vaccine
- Meningitis Vaccine
- Hepatitis B Vaccine.

If you are due to start a course of anti-cancer treatment and need a non live vaccine, eg the flu vaccine, it should ideally be given at least two weeks before starting the treatment. Non live vaccines can be given if you are having treatment sooner than two weeks but they may not work as well.

If you are already on anti cancer treatment it is best if you can have your vaccination within a few days before or just after your next treatment.

The “Flu jab” is the injected flu vaccine

You need to be vaccinated against the flu virus every year as each year’s vaccine is developed based on the virus strains experts think are most likely to be around. The strains change every year. Ask your GP surgery for a flu vaccine, “flu jab”. The flu vaccine injection does not contain live virus, and you cannot catch flu from having it.

If you have had a bone marrow transplant, you will be told by your medical team when it is safe for you to have the flu vaccine.

If you are unsure about any vaccination, or the timing of any vaccination, please ask your medical team at your next clinic appointment or contact your Clinical Nurse Specialist.

Close contacts

Whilst it is safe and recommended to have some inactivated vaccines, such as the yearly flu vaccine, during your anti-cancer treatment there is a risk you may not be fully protected from infections. This is because, your cancer treatment reduces the immune system's ability to 'remember' so the vaccine might not work as well.

As you are more vulnerable to infections during your cancer treatment it is important that the people you spend a lot of time with e.g. partners, family or housemates have all their recommended vaccinations to reduce the chance of them passing an infection on to you.

You should avoid close contact with people who have an active infection, for example colds, flu or chicken pox.

You should avoid close contact with someone who has had a live vaccine in oral liquid form for example:

- Oral Typhoid Vaccine

If a close contact requires a flu vaccine they should avoid the nasal spray vaccine. The injectable version is inactivated and therefore it is safe for you to be around people who have had it.

Rotavirus vaccine in babies

If you are in close contact with a baby who has been vaccinated within the last **two** weeks you should take special care with personal hygiene. This includes washing hands very carefully after changing the baby's nappy and before preparing or eating foods.

Chicken pox vaccine

The chickenpox vaccine is recommended for anyone (adult or child) who has not had chickenpox before and is in close contact with a person who has a weakened immune system due to anti-cancer treatment.

This vaccine is a live weakened version of the infection. If the vaccinated person develops a rash after their vaccine the rash should be covered until it is dry and crusted. If the rash cannot be covered, close contact with that person should be avoided.

If you are unsure about any vaccination, for you or a close contact, or about the timing of any vaccination, please ask your medical team.



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