

Resource

Etanercept

Etanercept is a 'biologic' drug. Biologic drugs are often referred to as 'targeted therapies' because they work on specific cells of the immune system. Etanercept works on the TNF α cells.

[Print](#)



Name of Drug	How the drug is taken	How it works	Blood tests
Etanercept (ETN)	Syringe or pen	Reduces overactivity of the immune system by targeting TNF α cells	Mandatory – every 3 months initially

Etanercept was originally only available as Enbrel (brand name manufactured by Pfizer). This is also described as the 'originator' (original version of the drug). In the last few years 'biosimilar preparations' have become available. These are permitted once the patent has expired on the original drug. The biosimilar preparations are copies of the originator although their preparation, how they are produced, for example volume of fluid that contains the drug may be different.

Biosimilars for etanercept include:

- Benepali – manufactured by Biogen
- Elrezi – manufactured by Sandoz

The biosimilars are considerably cheaper than the originator drug.

TNF α is an inflammatory chemical produced naturally as part of the immune system. In JIA, TNF α is present in excess in the lining of the joints causing pain, swelling, redness and heat, all of which are symptoms of inflammation.

Background

After development, etanercept was made available to control inflammatory arthritis in the late 1990s. The National Institute for Health and Care Excellence (NICE) produced guidance for use in 2015 which was further reviewed by National Health Service England (NHSE) in 2017 and defines the use in Juvenile Idiopathic Arthritis currently. This guidance is also accepted in Scotland.

How long does etanercept take to work?

Etanercept may take several weeks to be effective (2-12 weeks)

When can etanercept be prescribed in JIA?

Etanercept can only be prescribed for children and young people according to strict guidelines by paediatric and adolescent rheumatologists or specialist nurses who have undertaken non-medical prescribing qualifications.

Etanercept is prescribed where there is failure of or intolerance to methotrexate.

Etanercept may be prescribed together with methotrexate, the drugs combined assist in better control of symptoms.

Etanercept may be used on its own if the child or young person experiences side effects with methotrexate that they are no longer able to cope with. In these instances it is always worth trying a smaller dose of methotrexate, which may be less likely to cause side effects but will still prove beneficial to prevention of antibody formation.

Prior to starting treatment, additional checks are needed to establish if there is any history of tuberculosis (as this can be re-activated by etanercept) or hepatitis B or C (this can also be reactivated by etanercept). A record is taken of the vaccinations completed and any other information the specialist team requires.

Whether you are a young person with JIA or the parent of a child with JIA it is important that you understand the intended treatment and any possible precautions.

You may be invited to participate in a post-marketing registry. This is a database that stores information on the use of biologic drugs and helps to increase the knowledge of these treatments. There is more confidence in the benefit of a treatment when increasing numbers of patients take it for increasing lengths of time without significant side effects. The rheumatology team caring for you will discuss this in more detail.

Prior to etanercept being prescribed, the paediatric and adolescent rheumatology doctors may complete regulatory documentation called Blueteq. This is to ensure and monitor eligibility to the medication. Prescribing outside of this guidance requires an Individual Funding Request (IFR). If this is the case, the rheumatology team will discuss this with you.

How is etanercept given?

Etanercept is given as a subcutaneous (meaning 'under the skin' and often called 'sub-cut') injection with a pen device or syringe. This can be given once or twice a week, depending on the child or young person's age and response to treatment (older children may manage once-weekly injections whilst younger children feel symptoms developing earlier than 7 days). There are various ways that this can be organised. For example:

- parent(s) where possible will be taught to give their child's injection
- the child/young person may attend the local hospital or doctor's surgery to have the injection
- the young person, once old enough, can be encouraged to learn to inject themselves.

The management of this treatment is always discussed in detail at the start. Regular blood test monitoring is required; the frequency of which will depend on the prescribing specialist's advice.

The medicines may be supplied from your hospital pharmacy or delivered to you by a homecare company.

What are the possible side effects?

As with any medication, etanercept has possible side effects, although it is important to remember that these are only potential side effects and may not occur at all.

Infections

Etanercept, like other biologic drugs, has been associated with increased susceptibility to infections; sometimes these can be severe e.g. reactivation of tuberculosis or milder infections such as skin infections. Due to the risk of infection, tattoos and body piercings are not recommended.

Other possible side effects include:

- An increased risk of food poisoning, therefore careful hand hygiene and food preparation are essential
- Pruritis (itching) and injection site reactions
- Nausea and tummy pain
- Hypersensitivity reactions such as rash, bronchospasm (mimicking asthma) and angioedema (swelling of lips, tongue, around the eyes)
- Fever, headache and depression
- Blood disorders
- Immune system disorders
- Nervous system disorders
- Uveitis (inflammatory eye disease). Children and young people with uveitis will be prescribed alternative anti-TNF α therapy
- Irritable bowel disease

More information on side effects can be found in the patient information leaflet for adalimumab or the individual biosimilar (Enbrel, Benepali, Elrezi).

Remember to report any concerns about possible side effects to your doctor, or nurse

Etanercept and immunisation/vaccination

Live vaccines [measles, mumps, rubella (MMR), chickenpox, oral polio (NOT injectable polio), BCG, oral typhoid and yellow fever] cannot be given to anyone already taking etanercept . If etanercept has not yet been started it is important to seek advice on how long a gap to leave after having a live vaccine.

Flu vaccine is now available in two forms, an injection and a nasal spray. Unlike the injection, the nasal spray is a live vaccine. There is limited research evidence around live vaccines in people with a

lowered immune system (due to their medication). Children and young people who are being administered etanercept must have the injectable flu vaccine. It is therefore important to discuss with the healthcare team which of these options would be best.

Vaccination of close family members can help to protect someone with a lowered immune system.

Etanercept and pregnancy

There is not enough research information to give advice that either pregnancy or breast feeding is safe.

A man or a woman taking etanercept should use reliable contraception, both systemic and barrier methods, during treatment and for 3 weeks after the last dose before planning to start a family.

Remember to ask your doctor or clinical nurse specialist if you need any further advice.

Etanercept and alcohol

Alcohol can be consumed when taking etanercept. However, caution may be required when taking other medications alongside this drug, for example, methotrexate. Please see our separate articles on other JIA medications.

Tips regarding etanercept

- DO NOT ADMINISTER etanercept to a child or young person if they have a high temperature or you are concerned they are unwell with an infection – seek medical advice from your GP or rheumatology team.
- Stay safe on etanercept by remembering to have regular blood test monitoring as advised by the consultant or clinical nurse specialist
- A single syringe or pen device should be removed from the fridge for 15-30 minutes before using, in order to bring it to room temperature, as this will help to avoid any stinging at the injection site
- To ease injection site reactions, choose alternate thighs for the injections and by differing the actual site around the mid-thigh region
- An injection site reaction that includes a rash or redness can be eased with a cold compress
- Storage should be in a refrigerator (2°C – 8°C) and the syringes kept in the outer carton in order to protect them from light. Do not freeze

Tips for travelling with etanercept

- Before travelling it is important to keep up to date with vaccinations
- Live vaccines (see above 'Etanercept with other medicines') must be avoided. It is important to check whether any required vaccines are 'live' before booking a holiday

- Etanercept can now be stored at room temperature (up to 25°C) for a single period of up to 4 weeks, which makes it easier to carry when travelling by air. It should not be refrigerated after this
- Both the company providing the medication and the airline can supply more information on travelling with etanercept
- Your healthcare team can provide you with a letter of authorisation to travel with this drug. Homecare delivery companies also supply letters for travel.

Updated: 24/12/2019