Behçet's Syndrome

How is Behçet's usually pronounced and why?

Behçet's is usually pronounced as "Beh-CHETS" after Hulusi Behçet, a Turkish Professor who spent many years promoting the clinical awareness of the condition.

Is Behçet's syndrome' and Behçet's disease' the same condition?
The condition has been given many names, with the two most widely accepted being Behçet's syndrome and Behçet's disease. We favour using syndrome over disease as syndrome suggests that not every patient has exactly the same condition, whilst disease implies a single entity.

What is Behçet's Syndrome?
Behçet's syndrome is an inflammatory condition that may affect many different parts of the body. Often the skin and the lining of the mouth and genital areas (mucosa) can be inflamed. Joint pains, headaches, tiredness and stomach pains are also common. In some people, the eyes, blood vessels or (rarely) the brain or nerves may become involved.

Who are affected?
Behçet's syndrome is uncommon. It is most common along the ancient silk trading routes stretching from the Far East to the Mediterranean, and appears to have the highest frequency in Turkey and surrounding regions.

Although it is quite rare in the UK and other Northern European countries, it may occur in people of any nationality and race. Men and women are probably affected with equal frequency, but it is sometimes more severe in men. It may occur at any age, but is diagnosed most commonly in adults in their 20s and 30s. It is very unusual in young children.

What is the aetiology (cause)?

Genetics
Behçet's syndrome is not well understood by medical professionals. It is likely that people have a genetic predisposition. That means that they have certain genes that make them more likely than others to develop the condition. Doctors think this is the case partly because of the fact that it is more common in some countries than in others, and partly from genetic studies. Having an
affected family member very marginally increases your risk of developing the condition. As the syndrome is not present from birth, doctors feel that it is likely that genes aren’t the only factor involved. Indeed, if one of a pair of identical twins (who have identical genes) develops Behçet’s Syndrome, the other twin will not necessarily develop the condition.

**Environmental Triggers**

It is likely that an environment factor(s) trigger is necessary to cause Behçet’s syndrome to develop in individuals with a genetic predisposition (above). Researchers have studied many viruses (e.g. Herpes cold sore virus), bacterial infections (e.g. bugs that cause a 'Strep throat'), smoking, and the bugs that are present in the bowel, but so far have not fully answered this question.

**Resultant abnormal inflammation**

The result of the genes interacting with the environmental trigger is that someone who goes on to have Behçet’s Syndrome develops abnormal inflammation. Inflammation is a necessary function of the body, being needed to fight infections. In people with Behçet's syndrome, the inflammatory response becomes too enthusiastic, whereby a small insult to the body (e.g. a thorn prick) may result in a big inflammatory response, and inflammation may occur without an obvious cause.

**What are the symptoms?**

**Ulcers**

Recurrent mouth ulcers are the hallmark of Behçet's syndrome. Almost all patients have experienced these, and they can predate other symptoms by months or even years. Ulcers can be small, large or multiple. They are often on the inner lips but can also occur on the tongue, the roof of the mouth and occasionally the throat. Ulcers in Behçet’s syndrome do not typically form on the external lips. The ulcers are usually painful and occasionally leave a scar. Mouth ulcers affect up to 10% of the population so the presence of mouth ulcers alone is not enough for a diagnosis of Behçet’s Syndrome. Importantly, many other conditions can also be associated with oral ulceration. Most oral ulcers in Behçet's syndrome resolve within 10-14 days, although replacement with new ulcers may make it feel as if they are sustained. If an ulcer is persistent, your doctor may wish to arrange a biopsy to look into the diagnosis.

Genital ulcers occur less frequently than oral ulcers. In Europe approximately 60-70 per cent of people with Behçet’s Syndrome report suffering from them. They resemble oral ulcers in appearance, are usually painful and, when deep, may heal with scarring. Genital ulcers in females affect the vulva and vagina and, occasionally, the cervix. In males, ulcers occur classically on the scrotum. Because of their location, genital ulcers may become infected. Genital ulcers can be triggered by sexual intercourse and, conversely, are an obvious impediment to sex. As with oral lesions, non-healing ulcers should be biopsied.

**Skin**

Skin problems are very common in Behçet's syndrome, occurring in about 80 per cent of patients. Usually people will report redness and spots (pustules) resembling acne. Steroid treatment may also cause acne which can complicate trying to decide if pustules are related to the Behçet’s Syndrome or are a side effect of treatment. Less commonly, lumps may develop on the shins that resemble bruises (erythema nodosum), or which are due to an inflamed vein under the skin.

**Pathergy**

"Pathergy" is a term that describes an inappropriately large response to minor trauma. It is often experienced as prolonged or severe redness at the site of day-to-day injury, such as a needle or thorn prick or a nettle sting.
Eyes
Eye inflammation may be a serious problem in some people with Behçet's Syndrome. It is thought that 50-70 per cent of people with Behçet's develop inflammation of the eye. If this is going to happen, it usually starts within 2-3 years of the diagnosis of Behçet's syndrome. It is the first symptom (or the one that leads to the diagnosis) in 10-15 per cent of cases. Eye inflammation usually comes on in unpredictable, repetitive attacks. Help should be sought quickly if any symptoms develop, as treatment may be required to avoid damage to sight.

Headache
Headaches are very commonly reported in people with Behçet's syndrome. Over 80 per cent of people will report this symptom. For the vast majority, headaches are not the result of a serious problem in the brain and may improve with symptomatic treatment.

Symptoms that warrant further investigation include very severe or incapacitating pain, a change in character of the headache and particularly the presence of other symptoms (e.g. weakness, speech difficulties, visual loss). Serious brain problems occur in only a small proportion of patients.

Muscle and joint pains
Pain in the muscles and joints are common in Behçet's syndrome. Occasionally joint swelling and tenderness (arthritis) occurs but this is rarely persistent. Even if arthritis occurs, it rarely leads to damage to the joints and seldom becomes a significant cause of disability.

Stomach pains
Many patients with Behçet's syndrome experience abdominal pains, and symptoms similar to "irritable bowel syndrome" (bloating, diarrhoea or constipation). Camera tests such as colonoscopy / OGDs are frequently normal despite symptoms, with only about 1 in 10 symptomatic patients having visible ulceration or inflammation on these tests. Symptoms may respond to irritable bowel syndrome treatments or to treating with immunosuppressive drugs.

Blood clots and blood vessels
Probably less than 1 in 10 European patients with Behçet's syndrome develop inflammation in blood vessels. The blood vessels predominantly affected are veins. Veins of any size or position may be involved, but particularly the deep veins of the legs, causing Deep Vein Thrombosis (DVT). Arteries are less commonly affected. Aneurysms (expansion of arteries) can occasionally occur. There is no good evidence that Behçet's syndrome predisposes to ordinary heart disease.

Tiredness
Most patients with Behçet's syndrome report feeling fatigued and this may well impact on quality of life. The reasons for fatigue are often complex, often including inflammation, loss of physical fitness, pain, low mood and/or poor sleep. In addition to treatments to suppress the inflammation, attempts to increase fitness (e.g. swimming or pilates), address sleep disturbances, pain and mood may improve this symptom.

Making a diagnosis
No diagnostic laboratory or imaging test currently exists for Behçet's syndrome. A doctor will probably wish to undertake blood tests to help out rule other types of illness and to record the amount of inflammation. However, "inflammatory marker" blood tests (eg ESR, CRP) may be normal or only modestly raised despite ongoing clinical symptoms.

One blood test that may be helpful is "HLA-B51 expression". HLA B51 is a protein that is found on the surface of blood cells. People differ in the exact HLA proteins on the surface of their cells, and 'HLA B51' is the one found quite frequently found in people with Behçet's Syndrome. It is important to realise that many people with Behçet's syndrome will not have this protein, and, equally well, most people who have this protein will never develop Behçet's Syndrome.

The diagnosis therefore has to be decided on clinical grounds (i.e. on the basis of the opinion that your doctor forms after talking to you, examining you, and after taking blood tests to rule out other illnesses).

Clinical classification criteria
Clinical classification criteria were developed by a group of doctors in 1990 for standardising patients for research studies. It is possible to still have Behçet's syndrome without fully fulfilling these research criteria.
The Classification criteria published by the International Study Group in 1990
1. Oral ulcerations occurring at least three times a year
2. Plus two of the following in the absence of other systemic diseases:
   - recurrent genital ulcers
   - specific eye lesions observed by an ophthalmologist
   - skin lesions consistent with Behçet’s syndrome

Treatment

Ulcers
The aim of therapy is to reduce the frequency and severity of ulcers to an acceptable level. Topical measures should be tried first when possible, particularly in mild disease. Focusing on oral hygiene by using chlorhexidine mouth washes to reduce bacterial growth may reduce the frequency of mouth ulcers and subsequent infection. Topical corticosteroids are often helpful, as suggested by their widespread use rather than by robust clinical trials. These agents can be applied in many ways, including a beclomethasone inhaler (designed for asthma) to spray onto incipient lesions as they first become symptomatic, triamcinolone acetonide in adhesive bases or hydrocortisone lozenges.

Local steroid preparations may also be applied to genital ulcers, using an inhaler spray or cotton tips. Sucralfate can be used as an oral rinse or directly applied to genital ulcers.

Colchicine is usually the first-line tablet therapy for orogenital ulceration when topical measures are inadequate. Many patients will require further escalation in therapy and azathioprine is the usual first choice. If this therapy fails, an alternative can be chosen from the list below with due consideration of toxicity and cost.

Drugs and Side effects
For information on the main drugs prescribed for Behçet's Syndrome see:
- Colchicine
- Azathioprine
- Methotrexate
- Steroids
- Cyclophosphamide (for severe illness)
- Ciclosporin (no longer in common use)

used to treat Behçet's - Interferon therapy. Thalidomide (no longer in common use)

For information on other drugs used in the treatment of vasculitis see Glossary of drugs and side effects.

General considerations
Lifestyle modifications to reduce stress should be considered as anecdotal experience suggests that stress exacerbates Behçet’s syndrome. It is often worthwhile checking for and correcting vitamin D deficiency, as vitamin D has many immune-modulating effects and is often at surprisingly low levels.

Surgery and Behçet’s Syndrome - what should I know?
Given the large inflammatory response that people with Behçet's syndrome mount to trauma, surgery should not be undertaken lightly. A course of steroids, such as prednisolone, starting 7-10 days preoperatively and reducing rapidly after the procedure may be an option that you may wish to discuss with your specialist and surgeon, as they may help to prevent inflammatory complications developing in the perioperative period. However, the risk benefit ratio needs to be considered, given that steroids also may increase risk of infection. Arterial catherisation is best avoided when possible, for fear of aneurysm development at the arterial entry site. People often report that visits to the dentist or oral hygienist result in an outbreak of oral ulcers, which can often be avoided with a short course of steroids prior to the visit.

Pregnancy and Behçet's syndrome
There is no evidence that people with Behçet's syndrome have an increased risk of fertility problems, or complications during pregnancy, although women with vascular, neurological or eye involvement need to have a serious discussion with their doctors before proceeding. It is very
important to discuss medications with your doctor as many of the medications that patients are treated with may potentially harm a developing baby if not stopped well in advance of getting pregnant.

**Prognosis**
For the vast majority of people with Behçet's syndrome, a normal life span is expected. For those with severe eye inflammation, progressive loss of vision was previously a major complication. However, with improving treatments, visual loss is becoming more uncommon. Those with purely 'skin/ulcers/joint' disease have a very good prognosis.

**Key Points**
- Behçet's syndrome is a multisystem condition, the hallmark features being mouth and genital ulcers, although many areas may be affected, including inflammation in the eyes
- Behçet's syndrome commonly affects the skin, stomach and musculoskeletal systems
- No diagnostic test currently exists for Behçet's syndrome
- Treatment is based on immunosuppression with agents including steroids, azathioprine, and anti-TNF biologic agents

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**Related Vasculitis Articles**
- [Fertility and Vasculitis](http://www.behcets.org.uk) - Dr David Jayne

**Further reading**
- [Alemutzumab (CAMPATH-1H) as Remission Induction Therapy in Behçet's Disease](http://www.behcets.org.uk)
- [Vasculitis Paediatric Guidelines 2012](http://www.behcets.org.uk) - Dr Helen Foster & Dr Paul Brogan, Oxford University Press

**Behçet’s - Centres of Excellence**
In February 2012 three UK Behçet’s Centres of Excellence, for the diagnosis and treatment of Behçet’s Disease, were announced. These are to be at Bart’s and the London Hospital, Birmingham City Hospital and at Aintree University Hospital in Liverpool. The centres will be lead by Prof Farida Fortune (London), Dr Deva Situnayake (Birmingham) and Prof Robert Moots (Liverpool).

**UK Behçet’s Society** [http://www.behcets.org.uk](http://www.behcets.org.uk)

**American Behçet’s Disease Association** [http://www.behcets.com](http://www.behcets.com)

**Useful links**
Our [Useful Vasculitis Links](http://www.behcets.org.uk) page contains contact details for organisations offering help and support for patients with Behçet's syndrome and other vasculitis diseases.