



FOX-FORDYCE DISEASE

WHAT ARE THE AIMS OF THIS LEAFLET?

This leaflet has been written to help you understand Fox-Fordyce disease. It explains what Fox-Fordyce disease is and why it occurs. This leaflet also details what treatments are available, and where you can get more information.

WHAT IS FOX-FORDYCE DISEASE?

Fox-Fordyce disease (also known as apocrine miliaria, apocrine duct occlusion, and sweat retention disease) is a rare skin disorder affecting the apocrine sweat glands. It is named after the two dermatologists who first described the condition.

Apocrine glands are special sweat glands found in the armpits, genital region and breasts that produce a thicker, more scented secretion than the normal or 'eccrine' sweat glands found elsewhere on the body. Very rarely, Fox-Fordyce disease may affect other areas of the body and face. People with this condition develop small bumps on the skin around the hair follicles.

WHAT CAUSES FOX-FORDYCE DISEASE?

Fox-Fordyce disease is believed to be caused by blockage of the apocrine sweat glands. It is not yet known why these glands become blocked. It can develop in anyone at any age, but most commonly arises in women of child-bearing age. Hormones are believed to play a role, as often the condition resolves after the menopause, but the exact link has not yet been discovered.

In some people, laser hair removal seems to precede the development of Fox-

Fordyce disease, possibly due to the damage caused to the hair follicle.

IS FOX-FORDYCE DISEASE HEREDITARY?

Very rarely, Fox-Fordyce has been noted to run in families. However, most cases appear as a sporadic ('one-off') case without other members of the family being affected.

WHAT ARE THE SYMPTOMS OF FOX-FORDYCE DISEASE?

People with Fox-Fordyce disease may have no symptoms. In some cases, the rash can be very itchy, especially when individuals are experiencing high levels of stress or emotion. It can also worsen with heat, friction, and sweating, and may become troublesome at night.

WHAT DOES FOX-FORDYCE DISEASE LOOK LIKE?

Fox-Fordyce disease usually appears as small skin-coloured bumps or darkened spots at the base of the hair follicles. Some people have noticed hair loss or reduced sweating in the area. The skin may look redder/darker or have some thickening due to long standing itching or rubbing.

Most commonly, the disease follows a 'relapsing-remitting' course – this means it goes through phases of getting better and worse over time.

HOW IS FOX-FORDYCE DISEASE DIAGNOSED?

The diagnosis is normally made 'clinically' from the history and by examining the appearance of the rash. Occasionally, a skin biopsy may be performed to rule out other diseases. A skin biopsy is when a



small sample of skin is taken and examined under a microscope.

HOW CAN FOX-FORDYCE DISEASE BE TREATED?

Because Fox-Fordyce disease is rare, no large treatment trials have been carried out. However, available treatment recommendations come from small numbers of case reports in the research literature and so the advice is limited by the lack of evidence. Treatment is therefore difficult as no single treatment has been shown to be highly effective.

Topical Therapies (treatment applied to the skin):

There are a number of topical therapies that may be recommended. Gels and lotions are less likely to cause further occlusion (blocking) of the sweat glands than greasier creams or ointments and absorb into the skin more easily. These medicines can be prescribed by your doctor:

- **Topical steroids** can relieve the itching. However, strong steroids should not be used continuously as they may cause thinning of the skin. It is usually advised to use these for a few weeks with a break of several weeks between courses, but your doctor can advise on a specific regimen. Steroids have been injected into problematic areas with some success but again there is a risk of causing skin thinning.
- **Topical calcineurin inhibitors** (for example, tacrolimus or pimecrolimus) can also be used to calm itching and do not cause skin thinning but can cause a burning sensation.
- Topical retinoids such as tretinoin or adapalene may be used to try and reduce the rash but can cause further skin irritation.

- Topical antibiotics such as clindamycin have also been used successfully in some patients.

Oral Treatments (those taken by mouth):

- Antihistamine tablets can be used to control the itching, especially if it is interrupting sleep. Antihistamines are normally well tolerated with few side effects but may cause drowsiness. These may be prescribed but some are also available over the counter without a prescription.
- The estrogen based oral contraceptive pill has been effective in women with Fox-Fordyce disease by altering hormone levels but when treatment is stopped, the rash is likely to recur.
- Oral **isotretinoin** (also known as Roaccutane) is a drug that can improve symptoms whilst it is being taken. This drug can cause side effects including severe birth defects. It is used with caution in women of child-bearing age: a pregnancy prevention programme needs to be followed during treatment and for 1 month after stopping the medication. This would only be prescribed under the specialist supervision of a dermatologist and is not appropriate to be used long term due to the risk of side effects.

Surgical Options:

Very occasionally, surgical treatments have been offered to some people with Fox-Fordyce disease. There is a risk of scarring, and these procedures are not always available on the NHS. These are best discussed with your dermatologist.

Several people with Fox-Fordyce disease have been also treated with Botulinum toxin (Botox) injections, either to treat itch or excess sweating as a trigger for their condition.



SELF-CARE (WHAT CAN I DO?)

Try not to pick and scratch the area as this can make the situation worse and lead to infection. Avoid putting anything irritating onto the areas. Avoid greasy creams as they can cause further blockage of the apocrine sweat glands. Avoiding excessive heat, humidity or stress does help some people.

Changing faces is a support group for people with conditions that affect the way their skin and body looks or functions. Their website can be found at changingfaces.org.uk and their support line number is 0300 012 275.

WHERE CAN I GET MORE INFORMATION ABOUT FOX-FORDYCE DISEASE?

Web links to detailed leaflets:

<http://www.dermnetnz.org/hair-nails-sweat/fox-fordyce.html>

This leaflet aims to provide accurate information about the subject and is a consensus of the views held by representatives of the British Association of Dermatologists: individual patient circumstances may differ, which might alter both the advice and course of therapy given to you by your doctor.

This leaflet has been assessed for readability by the British Association of Dermatologists' Patient Information Lay Review Panel

**BRITISH ASSOCIATION OF
DERMATOLOGISTS**

PATIENT INFORMATION LEAFLET

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