

PATIENT INFORMATION LEAFLET

ACNE



WHAT ARE THE AIMS OF THIS LEAFLET?

This leaflet has been written to help you understand more about acne. It tells you what it is, what causes it, what can be done about it and where you can find out more about it.

WHAT IS ACNE?

Acne is a very common skin condition. It is identified by the presence of blackheads and whiteheads (comedones) and pus-filled spots (pustules). Acne ranges from a few spots on the face, neck, back and chest, to a more severe problem with solid painful lumps under the skin. It may cause scarring. Acne usually starts during puberty. Occasionally, young children develop blackheads and/or pustules on the cheeks or nose.

Most people will experience some form of acne during their lifetime. In most cases, acne goes away by the early to mid-twenties. In other cases, it can go on for longer. Acne can also develop for the first time in people in their late twenties and beyond.

WHAT CAUSES ACNE?

Acne is caused by a combination of factors.

- Sebaceous (oil-producing) glands are tiny glands found near the surface of the skin and are affected by our hormones. In acne, the glands are particularly sensitive, even when these hormones are at normal levels. This causes the glands to produce too much oil (sebum).
- At the same time, the lining of the pores (the small holes in the skin's surface) becomes thickened and dead skin cells build up and block the pores.

- The mixture of the oil and dead skin cells plugging the pores produces blackheads and whiteheads.
- Harmless bacteria that live on everyone's skin usually cause no problems. However, in acne, the build-up of oil creates an ideal environment for the bacteria to multiply and cause inflammation. This leads to the formation of red, swollen or pus-filled spots. (papules, pustules, nodules or cysts).
- Sometimes acne can be caused or made worse by excess hormones. This may occur in women in a condition called polycystic ovary syndrome (PCOS). PCOS is a hormonal imbalance that causes irregular periods, unusual hair growth and hair thinning.
- Acne can also be due to certain hormonal contraceptive preparations or high-dose steroids. Some tablets taken by bodybuilders contain hormones (anabolic steroids) that can trigger acne.
- Occasionally, other types of medications can make acne worse. If you develop acne or it suddenly gets worse, it would be worth discussing this with your healthcare professional.
- Oily skin care products, greasy moisturisers and hair products, or contact with oily substances at work, can also cause or worsen acne. Skin picking can also make acne worse and cause scarring.

There is not enough evidence to support specific diets for treating acne. However, a healthy, well-balanced diet is advisable. For further information, see



<https://www.nhs.uk/live-well/eat-well/food-guidelines-and-food-labels/the-eatwell-guide/>

IS ACNE HEREDITARY?

Acne can run in families, but many people with acne do not have affected people in their family. It is likely that a combination of genetic, hormonal and lifestyle factors (such as stress, skincare products, smoking, etc.) act in combination to cause most acne.

WHAT DOES ACNE LOOK LIKE AND WHAT DOES IT FEEL LIKE?

Acne is a mixture of the following: oily skin, blackheads, whiteheads, red spots and pus-filled pimples. Occasionally, larger, deeper bumps (known as nodules) or cysts (which resemble [boils](#)) may develop. Affected skin may feel hot, painful and be tender to touch.

Acne can leave scars or marks on the skin, particularly in the presence of nodules and cysts. These may be raised and lumpy (known as hypertrophic or [keloid scars](#)) or indented (known as pitted or atrophic scars). Acne can also leave discolouration which may be red, hyperpigmented (darker than your usual skin colour) or hypopigmented (lighter than your normal skin colour).

Not all spots are acne, so if there is something unusual about the rash it is advisable to consult your healthcare professional.

One important aspect of being affected by acne that is not discussed often is its impact on mental health. Acne can significantly affect an individual's psychological well-being. This may lead to low self-esteem, lack of confidence, negative body image (appearance-related concerns), anxiety and depression. Severe acne has been associated with suicidal behaviour. It is important to recognise the impact acne may have on how you feel. If required, speak with your healthcare professional about available support.

HOW IS ACNE DIAGNOSED?

A healthcare professional can diagnose acne during a skin examination. They do not usually need to run any diagnostic tests as it

is easily recognised by the type of spots and by their distribution on the face, neck, chest or back.

CAN ACNE BE CURED?

At present, there is no 'cure' for acne. Treatments can be very effective, preventing the formation of new spots and reducing scarring.

HOW CAN ACNE BE TREATED?

The first step is to use skincare products suitable for blemish-prone skin. These may be labelled as 'non-comedogenic' or 'oil-free'.

Active topical treatments (those applied directly to the skin) can be bought over the counter without a prescription. These include benzoyl peroxide, azelaic acid and nicotinamide. You should speak to your pharmacist for advice about these. Most treatments take 2 to 4 months to produce their full effect.

If you have acne but have had no success with over-the-counter products, then it is advisable to visit your healthcare professional.

Acne treatments fall into the following categories:

- Topical treatments, i.e. those that are applied directly to the skin
- Oral antibiotics, i.e. tablets taken by mouth
- Oral contraceptive pills
- [Isotretinoin](#) capsules
- [Spironolactone](#) tablets
- Other treatments

Topical treatments

These are usually the first choice for those with mild to moderate acne. There is a variety of active anti-acne agents. These include benzoyl peroxide, topical antibiotics (e.g. erythromycin, tetracycline and clindamycin), topical retinoids (e.g. tretinoin, isotretinoin and adapalene), azelaic acid and nicotinamide (also known as niacinamide). They should be applied to the areas of your skin that are affected by acne and not just to individual



spots. Usually, this is done every night or twice daily, depending on the treatment.

Some topical treatments can be irritating to the skin. It may be advised that the treatment is tested on a small area of affected skin for a few applications before being applied to the entire affected area. It may also be recommended that you gradually increase how often you use the treatment, for example using it once or twice weekly. This could lead to regular daily use, if it is tolerated. Consult your healthcare professional if the treatment continues to cause irritation of the skin despite reducing the number of times it is applied.

Some topical treatments, such as retinoids can lead to the acne getting worse for a few weeks before it gets better.

Oral antibiotic treatment

Your healthcare professional may recommend a course of antibiotic tablets, usually erythromycin or a type of tetracycline. Whenever possible, these should be taken at the same time as using topical treatments. It could improve your acne and help prevent your body getting used to the antibiotics.

Antibiotics need to be taken for at least 12 weeks and are usually continued until there is no further improvement. A course of antibiotics is usually given for 3 to 6 months. They should not normally be continued for more than 6 months due to concerns about antibiotic resistance. Some antibiotics should not be taken with food or can make your skin more sensitive to the sun, so read the instructions carefully. It is also essential to let your doctor know if you are planning a pregnancy as some antibiotics cannot be taken if you are pregnant.

Oral contraceptive treatments

Oral combined contraceptive pills containing cyproterone acetate may be helpful in women with hormone imbalances, who are affected by acne. These are usually used for people with PCOS. These tablets carry a small risk of blood clots so you must tell your doctor if you have any past history of these. This is a greater risk for people who smoke,

are overweight or have others in the family who have had blood clots.

Isotretinoin

Isotretinoin is a highly effective treatment for severe acne. The improvements can be long-lasting in those who complete a course of treatment. However, it has the potential to cause some serious side effects. Isotretinoin can be prescribed only under the supervision of a dermatology healthcare professional.

Most courses of isotretinoin last for around 6 months. During this time, the skin usually becomes dry, particularly around the lips. Regular application of a lip balm can be helpful. Often, acne becomes a little worse for a few weeks before improvement occurs. The improvement is progressive throughout the course of treatment, so do not be disappointed if progress seems slow.

Isotretinoin can harm an unborn child. The government's medicine safety agency (MHRA) has strict rules for prescribing this medicine. People who are able to get pregnant must enrol in a pregnancy prevention programme (PPP). They need to have a negative pregnancy test before starting treatment. It is very important to use reliable contraception whilst taking isotretinoin.

Usually, pregnancy tests will be repeated every month during treatment. This is required if you are using a contraceptive pill (or contraceptive injection) plus a barrier method of contraception. Another pregnancy test is also required 1 month after completing the course of treatment.

Pregnancy tests may be done less frequently if you are using a highly effective, 'user independent' method of contraception. These include contraceptive implants, coils (IUD) or intra-uterine systems (IUS). 'User independent' means that you do not have to remember to take the contraception.

Contraception must be used for at least 4 weeks before treatment, during treatment, and for at least four weeks after.

Following a report by the Commission on Human Medicines' Isotretinoin Expert Working Group in April 2023, concerns were



raised about mental health and sexual function effects associated with isotretinoin.

Current published research does not give a clear answer on whether isotretinoin is the cause of mental health problems in some people. We know that people affected by acne are more likely to experience anxiety and depression than people who are not affected. This is because acne may affect self-confidence and make people distressed about the way they look.

Several studies have shown that isotretinoin can improve negative mood changes caused by acne.

You should tell your healthcare professional if you have any personal or family history of low mood, depression or other mental health condition when considering isotretinoin therapy. You may be asked to see a mental healthcare professional before any treatment is commenced, to determine if it is safe for you to proceed. Letting close friends and family know about your treatment provides an opportunity for them to notice any changes in your mood. If this is the case, you should report these to your doctor without delay.

There are very rare reports of people having sexual function problems with isotretinoin. We do not know how often these may occur.

We know that problems with sexual function can be related to mental health issues. Other medication (such as antidepressants), which may be taken at the same time as isotretinoin, may also cause these.

There are some individual reports of patients experiencing a lack of interest in sex (low libido), vaginal dryness, difficulty getting/keeping an erection and reduced sensation in the genitals.

Rarely, men have reported breast tissue development (gynaecomastia).

Some people have reported that the problems have continued after stopping treatment.

If you have problems with sexual function, discuss with your dermatology healthcare professional before taking isotretinoin.

Further information about isotretinoin can be found in the section "[Where can I find more information about acne?](#)".

Spironolactone

Spironolactone is a drug usually prescribed for heart problems, high blood pressure and fluid retention. It also has hormonal effects by blocking the action of androgens (male hormones), that are normally produced in low levels by all women. Women affected by acne often have raised levels of androgens or increased sensitivity to normal levels of androgens. Some of these women will have PCOS.

For this reason, spironolactone is used "off-licence" to treat acne in women. An unlicensed drug is one that has not been awarded a Market Authorisation by the UK Medicines Healthcare Products Regulatory Agency (MHRA). Drug licences are awarded following a rigorous process of evaluation by the MHRA following an application by a pharmaceutical company. Once awarded, the licensed drug can then be marketed and sold in the UK. In the absence of a licence, the drug may still be prescribed in the UK, provided there is funding available locally to pay for it. Additionally, there must be a clear body of evidence to confirm that the drug is effective for the condition in question and that safety concerns have been adequately addressed.

Therefore, the off-licence use of spironolactone means that the treatment has not been authorised to specifically treat acne in the UK by the MHRA. However, there is evidence that it is effective and safe to treat acne. Healthcare professionals can therefore prescribe it when they think that it is necessary.

Other treatments

There are many forms of light and laser therapy for inflammatory acne. These types of treatment have given mixed results when studied and are usually ineffective in the treatment of severe acne. Laser resurfacing



of facial skin to reduce post-acne scarring is an established technique. It requires the skills of an experienced laser surgeon. Laser treatment should not be carried out for at least one year after completing a course of isotretinoin. It is not usually available on the NHS.

Various other techniques may also be used to improve the appearance of acne scars. These include [steroid injections](#), chemical peels, 'microneedling' and 'subcision'. However, they are not routinely available on the NHS. Skin camouflage is an inexpensive and effective method for disguising changes in the pigmentation of the skin which can sometimes remain after acne has been treated.

SELF-CARE (WHAT CAN I DO?)

- Try not to pick or squeeze your spots as this usually aggravates them and may cause scarring and infection.
- If your self-confidence has been affected by acne or if you are feeling distressed, it is important to reach out to others for support. This includes friends, family members and support groups. You may also be able to access a counsellor through school, university or work.
- Let your healthcare professional know if being affected by acne is making you have low moods, feel depressed or anxious. They will be able to speak with you about how you are feeling and help you to form a treatment plan. This may involve help from other specialists, such as psychologists or psychiatrists, if necessary.
- However, you are affected by acne, it is important to take action to control it as soon as it appears. This helps to avoid permanent scarring. If acne is mild, it is worth trying over-the-counter preparations in the first instance. Ingredients such as salicylic acid or benzoyl peroxide can be helpful. A pharmacist will be able to advise you.
- Expect to use your treatments for at least 12 weeks before you see much

improvement. Make sure that you understand how to use them correctly, so you get the maximum benefit.

- Some topical treatments may dry or irritate the skin when you start using them. If your face goes red and is irritated by a lotion or cream, stop treatment for a few days. Try using the treatment less often and then building up gradually.
- Make-up may help your confidence. Choose products that are labelled 'non-comedogenic' (should not cause blackheads or whiteheads) or non-acnegenic (should not cause acne).
- Cleanse your skin and remove make-up with a gentle cleanser and water, or an oil-free soap substitute. Scrubbing too hard can irritate the skin and make acne worse. Remember blackheads are not due to poor washing.

WHERE CAN I GET MORE INFORMATION ABOUT ACNE?

Web links to other relevant sources:

Acne Support provides expert, impartial information from consultant dermatologists on the treatment, causes and prevention of acne, as well as advice on how to access emotional support.

<http://www.acnesupport.org.uk/>

<https://www.nhs.uk/conditions/acne/>

<http://www.pcds.org.uk/clinical-guidance/acne-vulgaris>

<http://www.dermnetnz.org/acne/index.html>

<http://www.skincarephysicians.com/acnet>

Further information on isotretinoin:

<https://www.bad.org.uk/pils/isotretinoin/>

<https://www.rcpsych.ac.uk/mental-health/mental-illnesses-and-mental-health-problems/isotretinoin-and-mental-health>



<https://www.medicinesforchildren.org.uk/medicines/isotretinoin-guide-for-young-people/>

<https://www.bad.org.uk/guidelines-and-standards/isotretinoin-clinical-resources/>

Jargon Buster:

www.skinhealthinfo.org.uk/support-resources/jargon-buster/

Please note that the British Association of Dermatologists (BAD) provides web links to additional resources to help people access a range of information about their treatment or skin condition. The views expressed in these external resources may not be shared by the BAD or its members. The BAD has no control of and does not endorse the content of external links.

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

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