Epidermoid and Pilar Cysts (Sebaceous Cysts)

Epidermoid and pilar cysts are commonly referred to as 'sebaceous cysts' (pronounced 'seb-ay-shuss'). They are overgrowths of skin cells (called keratin) held together in a little capsule, or sac.

They are harmless smooth lumps just under the surface of the skin. They are not cancerous and do not require removal unless they are bothering you by the look or the feel of them.

They can occur almost anywhere in the body, but are commonly found on the back or scalp.

What are epidermoid and pilar cysts?

A cyst is a sac that is filled with a fluid or semi-fluid material. Cysts develop in various places in the body and arise from different tissues in the body. Two of the most common types of cyst that occur under the skin surface are epidermoid and pilar cysts. These cysts used to be called sebaceous cysts but this term is no longer correct, as the origin of these cysts is not from the sebaceous glands in the skin, as was once thought.

However, many doctors still call them sebaceous cysts and so you will probably hear them using this term.

- An epidermoid cyst is a cyst where the cyst sac forms from cells that normally occur on the top layer of the skin (the epidermis).
- A pilar cyst is a cyst where the cyst sac forms from cells similar to those that are in the bottom of hair follicles (where hairs grow from).

In both cases, the semi-fluid content of the cyst looks a bit like cottage cheese. This substance is soggy keratin. Keratin is made by skin cells and is the substance that hairs are made from and the substance that covers the top layer of the skin.

What do these cysts look like and what are their symptoms?

Epidermoid and pilar cysts are smooth round lumps which you can see and feel just beneath the skin surface. They are very common. Often they are small, like a pea, but sometimes they slowly get bigger over many months to become a few centimetres in diameter. They look very similar to each other but can be distinguished from each other if the cells that form the cyst sac are looked at under the microscope.

- Epidermoid cysts can affect anyone but are most common in young and middle-aged adults. They can appear anywhere on the skin but develop most commonly on the face, neck, chest, upper back and sometimes on the scrotum.
- Pilar cysts can affect anyone but are most common in middle-aged women. They can appear anywhere on the skin but develop most commonly on the scalp. It is common for several to develop at the same time on the scalp.

Epidermoid and pilar cysts usually cause no symptoms. Occasionally:

- They become infected, when they may become red, inflamed and painful. A course of antibiotics will usually clear an infection if it occurs. Sometimes they settle down even without antibiotics.
- The cyst may leak the cheese-like material on to the skin if the cyst is punctured or damaged.
- A little horn may grow on the skin over the cyst.
- A cyst may form in an uncomfortable place such as in the genital skin or beside a nail.
This photo shows the typical appearance of an epidermoid cyst on someone's back. These are quite common and many people have one of their back without being aware of it:

![Image source: Open-i (Jawa DS et al) - see Further reading below]

This photo shows a typical epidermoid cyst on someone's scalp (although this is a large one - most epidermoid cysts are not this big):

![Image source: Open-i (Ali SY et al) - see Further reading below]

What causes epidermoid and pilar cysts?

It seems that some cells that are normally near to the surface of the skin (cells of the epidermis or cells in hair follicles) get into deeper parts of the skin and continue to multiply. The cells that multiply form into a sac and produce the keratin that they would normally make on the top layer of the skin. The keratin becomes soggy and forms into a cheese-like substance.

Usually epidermoid cysts pop up for no particular reason: there is nothing you can do to prevent them. They are not related to cleanliness, nor will exfoliating stop them occurring.

Pilar cysts on the scalp can be hereditary and run in families, although this is rare.
This photo shows what an epidermoid cyst looks like after it has been cut out. If you cut this in half it would look like cottage cheese inside.

Image source: Open-i (Verma S et al) - see Further reading below

Are epidermoid and pilar cysts harmful?

Not usually. If they do not bother you then it is best just to leave them alone. If one has grown recently it’s worth asking your doctor to check that it is a harmless cyst. Sometimes a person with an epidermoid or pilar cyst requests that it be removed. This is usually for one of three reasons:

- Cosmetic reasons. For example, the cyst is in an obvious site on the skin and looks unsightly.
- They are sometimes easy to catch and traumatise. This typically occurs on the scalp when combing hair.
- If the cyst has become infected or irritating.

Epidermoid and pilar cysts are non-cancerous (benign). They do not spread to other parts of the body or cause any serious problems.

Removal of epidermoid and pilar cysts

If required, the cyst can usually be easily removed by a simple operation under local anaesthetic. The surrounding skin is numbed by injecting some local anaesthetic. A small cut is made over the cyst. It can then be gradually teased out by the doctor. The wound is then stitched up. A small scar will result. Sometimes, after the removal of a cyst, it gradually regrows in the same site under the scar.

Bear in mind you then exchange a small cyst for a scar: some people would rather have been left with the cyst, once they see the results of the surgery.

Further reading & references

- Cysts: DermNet NZ

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