

SHEPROS®

Safety, Health & Environment Product Solutions

PIMPLE GEL



SHEPROS Sdn. Bhd.

[An Alliance of SHEPROS International (USA) LLC.]

Pimples

What are pimples?

A pimple is a small pustule or papule. Pimples are also known as spots or zits. They are small skin lesions or inflammations of the skin. Pimples occur when the sebaceous glands (oil glands) are overactive and infected with bacteria, swell up, and then fill up with pus.

What are sebaceous glands?

The sebaceous glands are tiny skin glands which secrete sebum - a waxy/oily substance - to lubricate the skin and hair of humans. They are located at the base of hair follicles in the face, back, chest and shoulders. They exist throughout all skin sites except the palms and soles; there is a greater abundance of sebaceous glands on the face and scalp. In our eyelids, meibomian sebaceous glands secrete a special type of sebum into tears.



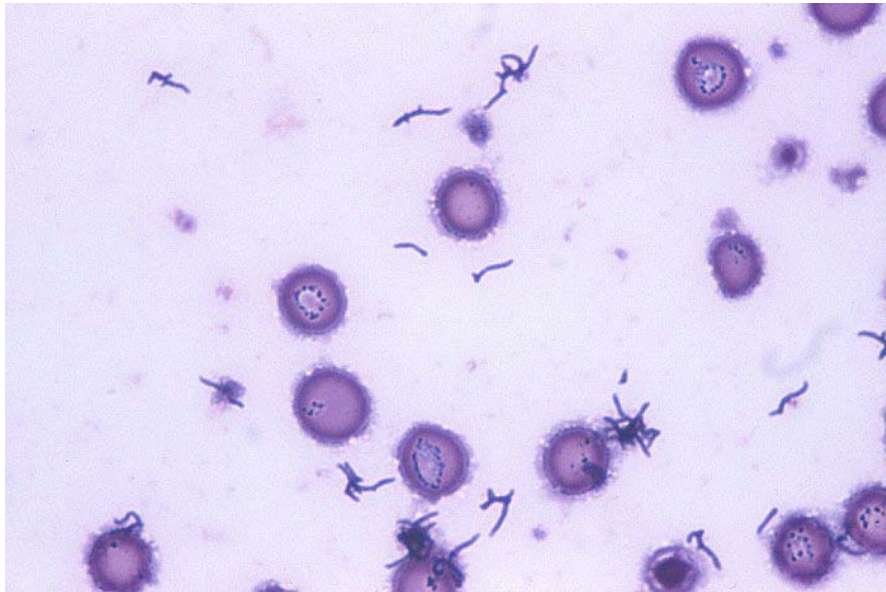
Several medical conditions are linked to an abnormality in sebaceous gland function, including:

- Acne (pimples).
- Sebaceous cysts - closed sacs or cysts below the surface of the skin.
- Hyperplasia - the sebaceous glands become enlarged, producing yellow, shiny bumps on the face.
- Sebaceous adenoma - a slow-growing tumor (benign, non-cancerous) usually presenting as a pink, flesh-colored, or yellow papule or nodule.
- Sebaceous gland carcinoma - an aggressive (cancerous) and uncommon skin tumor.

What are the causes of pimples?

The sebaceous glands, which produce sebum, exist inside the pores of our skin. The outer layers of our skin are being shed continuously. Sometimes, dead skin cells are left behind and get stuck together by the sticky sebum, causing a blockage in the pore. Pore blockage is more likely to occur during puberty.

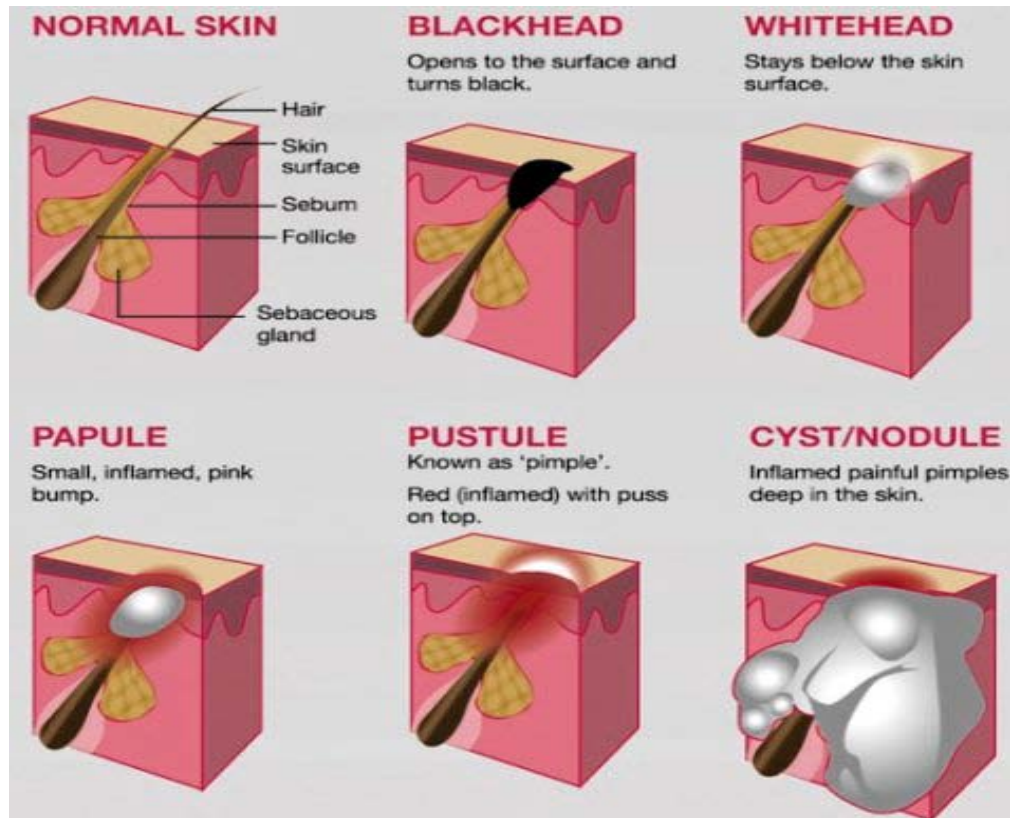
More sebum is produced by the sebaceous gland when the pore is blocked resulting in accumulation of sebum behind the pore. This blocked, accumulated sebum houses bacteria, including the slow-growing *Propionibacterium acnes* bacterium that is linked to acne. *Propionibacterium acnes* generally exists harmlessly on our skin. However, when the conditions are right, it can reproduce very rapidly and become a problem. The bacterium feeds off the sebum and produces a substance that causes an immune response, leading to inflammation of the skin and spots.



Propionibacterium acnes

The skin of people who are prone to acne are especially sensitive to normal blood levels of testosterone - a natural hormone found in both males and females. In such people the testosterone can make the sebaceous glands produce too much sebum, making the clogging up of dead skin cells more likely, which in turn increases the probability of blocked pores, etc.

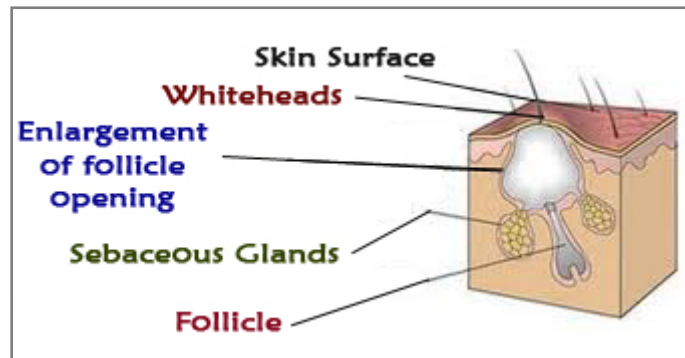
The Formation of Pimples



The Development Stages of Pimples

Signs and symptoms of pimples - Types of pimples

- **Whiteheads** - also known as a *closed comedo*. These are very small and remain under the skin, appearing as small, flesh-colored papules.

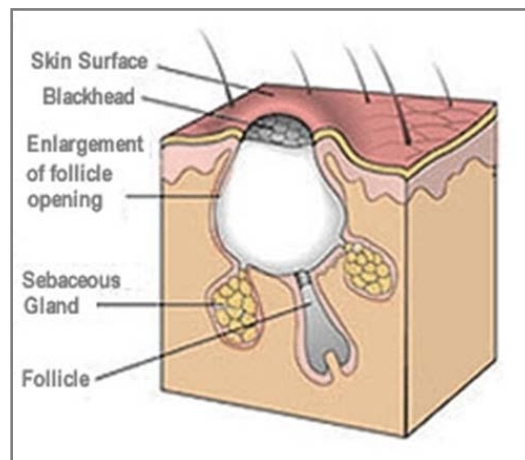


Closed comedo (whitehead) formation



Whiteheads on forehead (left) and squeezed whiteheads from nose (right)

- **Blackheads** - also known as an *open comedo*. These are clearly visible; they are black and appear on the surface of the skin. Some people mistakenly believe they are caused by dirt, because of their color, and scrub their faces vigorously - this does not help and may irritate the skin and cause other problems.

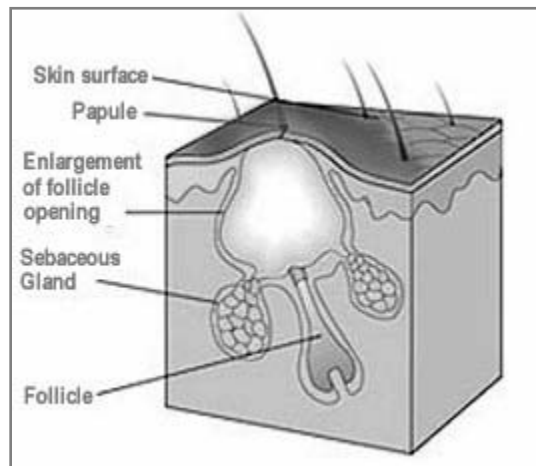


Open comedo (blackhead) formation



Blackheads on face (left) and nose (right).

- **Papules** - these are small, solid, rounded bumps that rise from the skin with no visible fluid. The bumps are often pink or red in color.

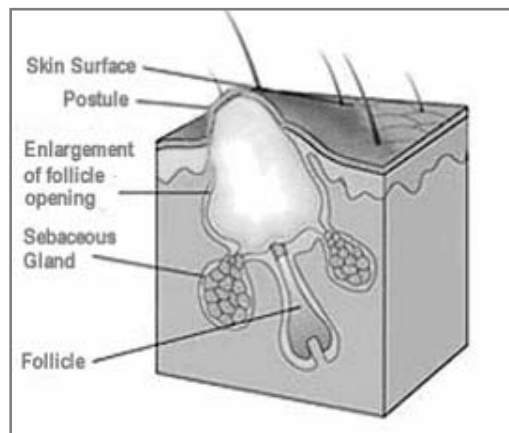


Papule Acne Formation

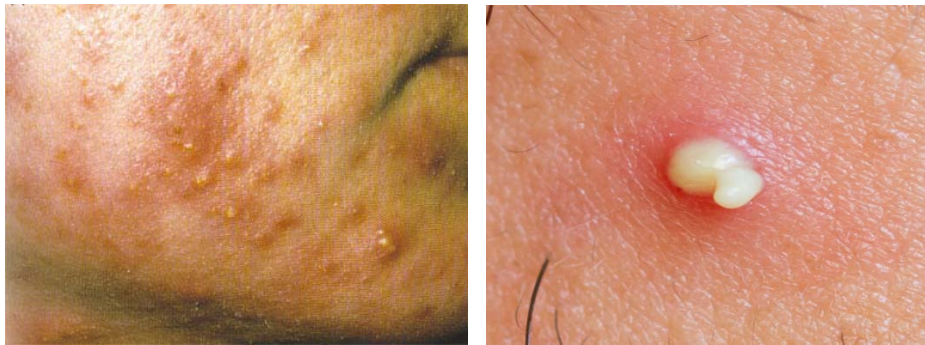


Papules on face (left) and a papule on nose (right).

- **Pustules** - these are pimples full of pus. They are clearly visible on the surface of the skin. The base is red and the pus is on the top.

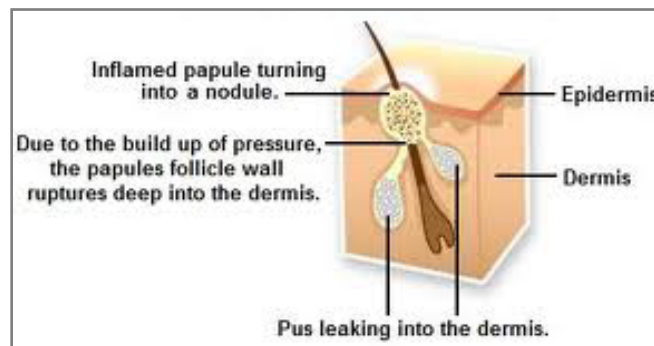


Pustule Acne Formation



Pustules on face (left) and a closer look of a pustule (right)

- **Nodules** - these are morphologically similar (similar structure) to papules, but larger. They can be painful and are embedded deep in the skin.

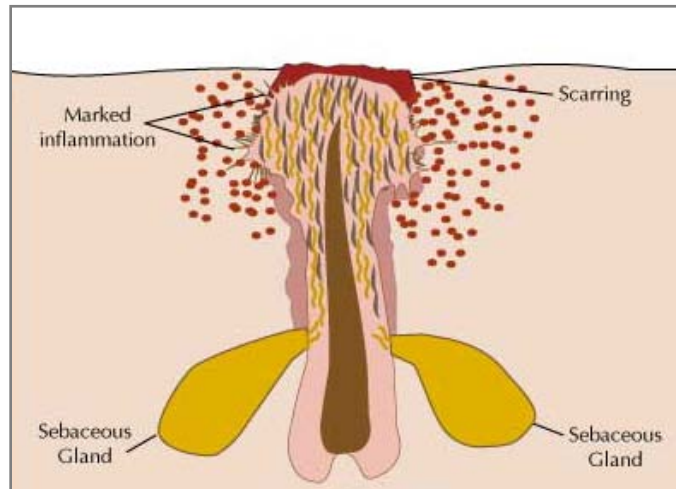


Nodule Acne Formation



Nodules on forehead (left) and a nodule on nose (right).

- **Cysts** - these are clearly visible on the surface of the skin. They are filled with pus and are usually painful. Cysts commonly cause scars.



Formation of Acne Cyst



Acne cysts on face (left) and on chin (right)

How common are pimples (acne)?

Acne is the most common skin disease for adolescents. According to the *British Medical Journal (Clinical Evidence, Authors: Sarah Purdy, David DeBerker)*:

- More than 80% of teenagers get acne at some point.
- A community sample of 14 to 16 year-olds in the United Kingdom revealed that acne affected 50% of them.
- A sample study of adolescents in New Zealand found acne was present in 91% of boys and 79% of girls.
- A sample study of adolescents in Portugal found that the average prevalence of acne (in both sexes) was 82%.
- 30% of teenagers with acne required medical treatment because of its severity.
- General practitioners (GPs, primary care physicians) in the UK reported that 3.1% of 13 to 25 year-old patients visited them complaining of acne.
- The incidence of acne is similar in both adult males and females.
- Doctors report that acne appears to peak at 17 years of age.
- Acne incidence (presence, occurrence) in adults is increasing, doctors report. We don't know why.

Air Pollution and the Skin Problems

The detrimental effects of air pollution are widespread and numerous. Effects on the skin alone include dryness, premature aging, skin rashes, eczema and acne. While most people know that outdoor air pollutants can be harmful to health, not everyone realizes that indoor pollutants can cause skin problems and other serious health risks as well. The US Environmental Protection Agency points out that studies indicate indoor air pollutants can be two to five times higher than the levels found outside.

The skin is an amazing organ. It serves many functions for our bodies, both internally and externally. One of its most important functions is protection. The skin protects us not just by covering and containing all of our internal organs, fluids, and systems, but also by forming a barrier to fight off pathogenic microorganisms (viruses, bacteria, fungi, etc.), and by filtering out toxins and environmental aggressors such as the sun and air pollution. Skin is the body's first line of defense against these stressors.

Intact and unbroken skin acts as a filter for environmental aggressors such as air pollution, trapping them in the epidermis (the outermost layer of the skin which acts as a barrier), which will eventually shed off. However, more and more people have compromised barrier layers because of over-exposure to stressors like the sun, polluted air and water, toxic chemical skin care ingredients, and harsh weather

conditions, in addition to intrinsic factors like stress, poor diet, dehydration, smoking, and excessive alcohol consumption.

When toxins and particulates from air pollution become trapped in the epidermis, they get lodged in the hair follicles (pores) and cause them to clog. This can interfere with the skin's natural ability to slough off dead skin cells and debris, often leading to the formation of different types of acne infections: whiteheads, blackheads, papules, pustules, nodules and acne cysts.

Long-term exposure to air pollution can also cause irritant, inflammatory, and allergic skin reactions like rashes, eczema, and blood vessel damage or "broken capillaries".

Benefits of Pimple Gel in Treatment of Acne

1. **Antibacterial:** Pimple Gel heals inflamed pimples through selective drying of the pimples with antibacterial effect. It inhibits the growth of acne bacteria while soothing the skin.
2. **Moisturizing:** Pimple Gel can be applied on the skin mixing it with your creams, lotions or other products. It moisturizes the oily skin appropriately without making it greasy.
3. **Use it in your face pack:** For oily skin, Pimple Gel can also be used in a face pack. Apply this face pack all over your face and neck. Keep it for 15 minutes and wash it off with cold water. This will make the oily skin glow and also hydrate at the same time. It helps in eliminating the dead skin and thereby improving the skin tone too.
4. **Pimple Gel helps in cell maturation:** Pimple Gel can help in cell maturation. If Pimple Gel is applied on the oily skin then it can play a vital role in getting rid of many issues related to skin especially the ones related to oily skin like acne, pimples and blackheads.
5. **To remove excess oil from the oily skin:** People with oily skin tend to sweat a lot and the skin produces excess oil too. Pimple Gel is excellent to remove oil from the skin and reduce sweating on face.
6. **To hydrate the skin:** Although oily skin does not seem to need moisturizing as it is oily, the fact is that it still needs to be moisturized and Pimple Gel helps you give the right amount of hydration to your skin. Pimple Gel is hygroscopic in nature, which means it can draw water from the air and transfer into the skin and helps it retain it too. This way the oily skin is hydrated and nourished.
7. **To smoothen the skin:** Pimple Gel is great to add smoothness to the oily skin too. The skin will become super soft.

Pimple Gel

Product Description:

Pimple Gel is specially formulated with ingredients which are non-foaming, non-skin irritating and environmentally friendly. It is made of minerals and plant based ingredients which penetrate quickly and heal inflamed pimples.

Pimple Gel does not contain alcohol, petroleum distillates, soaps, chemical thickening agents, nitrates, enzymes, phosphates, animal fatty acids, hydrocarbon toxic solvents, non-biodegradable surfactants and ozone depleting substances. It is odorless and doesn't irritate sensitive skin.

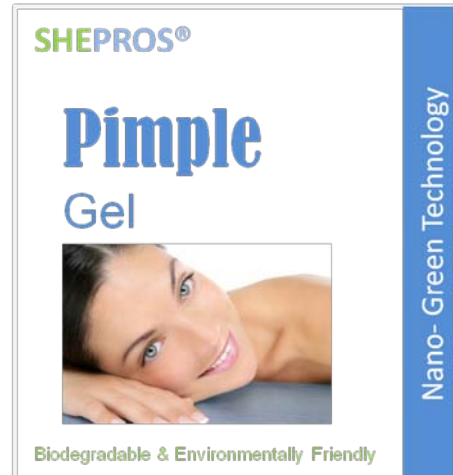
Benefits:

Application:

Pimple Gel heals inflamed pimples through selective drying of the pimples with antibacterial effect. It inhibits the growth of acne bacteria while soothing the skin. Pimples are reduced in size, swelling and redness. Pimple Gel doesn't over-dry your skin.

Directions:

Wash your face with Face Cleanser before applying Pimple Gel. Apply a thin layer of Pimple Gel over your face. You can do this up to 3 times a day.



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