

## Lifewire: Facing stress bad for teen skin

by Amy Winter

A recent study shows that signs of stress might be as plain as the blemishes on a teenager's face.

The study, completed by researchers from Wake Forest University School of Medicine and reported in the Swedish medical journal *Acta Derm Venereol*, shows that increased levels of stress is a contributing factor to severe acne in adolescents.

"Acne significantly affects physical and psychosocial well-being, so it is important to understand the interplay between the factors that exacerbate acne," said Dr. Gil Yosipovitch, the lead author and professor of dermatology.

More than nine out of every 10 teenagers suffer from acne, the article reports. This inflammatory skin condition occurs when there are changes in the hair follicles, or pores, on the face.

During puberty, oil glands begin to produce extra oil causing most teenagers to have greasy faces. The extra oil sticks with the top layer of dead skin cells and becomes trapped in skin pores, according to the Web site, [acne.com](http://acne.com). A blemish doesn't emerge on the skin's surface for about two to three weeks.

According to the site, a pimple appears once the body's defense system responds to the plugged pore. A pore becomes swollen when oil and bacteria are trapped inside. As it swells, the body continues to produce oil and sends white blood cells to fight the infection. This process leads to pus production and the formation of a pimple.

Pimples develop in the same method but they tend to take different forms. The types of non-inflammatory acne are:

- Whitehead: a plugged follicle under the skin's surface that is seen as a small, white bump.

- Blackhead: a plugged follicle that makes it to the skin's surface.

The types of inflammatory acne are:

- Papule: a small, pink bump that is the least aggressive.

- Pustule: Inflamed and containing pus.

- Cyst: Inflamed, filled with pus abrasions that are deep in the skin; they can last for weeks or even months.

- Acne conglobata: acne that forms on the back, buttocks and chest.

Several culprits lead to severe acne, especially for teenagers:

- Hormones: Androgens during puberty cause extra oil to be produced.

- Extra sebum: the greasy substance that protects the hair and covers the skin is made in greater amounts.

- Follicle fallout: Dead cells in the follicle shed at a greater pace causing a plug to happen more often.

- Bacteria: It grows at a faster pace once the follicle is clogged.

- Inflammation: Pimples become swollen and red when the white blood cells attack.

During the study, 92 percent of girls and 95 percent of boys said they had acne. The Web site, [acne.com](http://acne.com), provides tips to keep acne under control. Teenagers should write down this list to help control the spread of acne:

- Keep it clean: Wash your face twice a day with a cleanser and warm water.

- Avoid harsh scrubs: These can irritate your skin.

- Avoid drinking alcohol: It takes away the top layer of skin, which will cause more oil to be produced by glands, and can lead to dry skin.

- Refrain from picking at pimples: Squeezing with fingernails can cause the bacteria to go deeper into the skin and leave you with a scar.

- Hands off your face: Touching your skin may move bacteria back into your pores.

- Avoid long sun exposure: Tans and burns make your dead skin cells shed at a faster rate, which develops more plugged pores.

The study consisted of secondary school students from Singapore around the age of 14. To evaluate stress levels and acne severity, researchers used a "perceived stress scale" as well as watching the amount and types of acne. These tests were completed before midyear exams and during summer break.

Researchers found that levels of stress were 23 percent more likely to increase pimples or inflammatory acne; however, stress was not connected with the increase of whitehead and blackhead production.

"Our study suggests a significant association between stress and severity of acne," said Yosipovitch.

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