

Acne is a common concern of women with PCOS and usually persists beyond the teenage years.

### **Why do acne occur?**

Acne occurs when the pores in the skin clog due to the production of excess sebum (oil) causing dead skin cells to stick together. Elevated male hormone (androgen) levels in the blood are associated with excess sebum production. The severity of acne can be assessed by the location (face, neck, chest and back), types of lesions (whiteheads, blackheads, papules, pustules) as well as history of prior treatments (over the counter topical medications, antibiotics and retin A).

### **What is the first line medical treatment for acne?**

In women with PCOS, a combination of topical treatments to decrease oily skin and medications to decrease blood androgens levels work the best. Most birth control pills are effective in lowering the free androgen levels in the blood. It will typically take 3 months to see a marked change in the blood tests and simultaneous improvement in acne. If there is an inadequate response to treatment with birth control pills then a second medication, such as antibiotics or Spironolactone, can be added. Occasionally there is a flare-up of acne after starting birth control pills. In that case your doctor will prescribe topical medications (e.g. retinoid cream) and /or change the birth control pill.

### **What are other medical treatments?**

Spironolactone is used as a second line medication for the treatment of acne. It blocks the activity of testosterone in the skin, decreasing oil gland activity and the number of acne lesions that develop. Spironolactone is a slow acting medication and it often takes about 2 months to see its effect on acne. You can take Spironolactone for 6 months to a year, but then you usually need to taper off. There are some patients, however, who may need to remain on Spironolactone for more than a year. This medication has side effects that can affect a pregnancy, so the use of birth control is always recommended.

### **Do topical treatments work effectively?**

Facial cleansers or toners can be used for the treatment of acne. The product that will work best depends on the type of the skin - dry or oily. Benzoyl peroxidase or salicylic acid wipes or topical application can be used for oily skin. Patients with PCOS associated acne should have at least one visit with a dermatologist so that the patient can receive personalized care and specific instructions for their skin type. This way they will avoid purchasing expensive skin care products that may not be appropriate for their individual skin type. In addition, hard cystic acne can become very painful and persist on the skin for several weeks requiring treatment with antibiotics (doxycycline/minocycline) and retin A. It is therefore important to treat acne in a timely manner to prevent scarring.

