age spots. Patients may experience mild swelling and redness as a result of the treatment. One method, microdermabrasion, involves buffing the face with special tools to remove dead skin cells and stimulate the body to produce more collagen, which forms around the pores. If done properly, microdermabrasion can improve the texture and appearance of the skin. Patients may experience a sensation of heat and mild discomfort during the procedure, but it is generally well tolerated.

Dermatologists also use chemical peels to safely remove layers of skin. Peeling away the layers reveals the fresher, smoother skin beneath. Dermatologists use several techniques to achieve this, including application of a chemical solution to the skin, which causes the oldest or dead skin to either peel off or dissolve. Depending on the severity of the peel, the new layer of skin can take anywhere from a few days to several weeks to fully recover. Chemical peels may be painful, and depending on how deep they penetrate, they can require up to as much as 10 days of recovery time. Patients who are sensitive to pain can be given an oral or IV sedative in order to help them feel more comfortable during the procedure.

Many people choose to try microdermabrasion or chemical peels to improve their skin's appearance. These procedures are often used in conjunction with other treatments to achieve the best possible results. For example, patients may want to combine a chemical peel with a chemical peel to treat specific areas of their skin.

The AAD recommends that patients considering any skin filler treatment ask the following questions:

• Are before and after photos available?
• Are there any fees for general consultations?
• What are the risks?
• What results can be expected? How long is the recuperation period?
• How many of these cosmetic dermatology procedures has the physician performed?

Charles E. Crutchfield III, M.D., is a nationally recognized Board Certified Dermatologist and Clinical Associate Professor of Dermatology at the University of Minnesota Medical School. He is a graduate of the Mayo Clinic Medical School. Dr. Crutchfield has been honored with many awards and distinctions, including appointment as “One of the Top Dermatologists for Women in Minnesota” by Minnesota Monthly magazine. For more information and to view before and after photographs, please visit www.CrutchfieldDermatology.com.
Cosmetic dermatologists use a number of innovative techniques to treat stubborn fine lines and wrinkles, effectively turning back the clock. Best of all, the procedures can be performed without surgery and in a single afternoon, often allowing patients to return to work the next day. For these reasons, non-surgical cosmetic procedures are increasing in popularity. The American Society for Aesthetic Plastic Surgery (ASAPS) reported a 51 percent increase in non-surgical cosmetic procedures in 2004, compared to 2003. Among the most-requested non-surgical cosmetic procedures are Botox, fillers such as collagen, and chemical peels.

Our facial muscles age us
The facial muscles used for smiling, frowning, squinting, and laughing eventually leave creases where they expand and contract. As we age, these lines become more noticeable. Cosmetic dermatologists use a compound called botulinum toxin—commonly referred to by its brand name, Botox—to treat these wrinkles.

Doctors discovered the cosmetic benefits of Botox in the early 1990s. At first, patients were concerned about the product’s safety, because the botulinum toxin is related to botulin—a toxin that can sometimes induce fatal food poisoning. “People used to be afraid, but they realize now that it’s very safe,” says Dr. Charles Crutchfield III, from Crutchfield Dermatology in Eagan, Minnesota. “There has never been one adverse event or fatality.”

Cosmetic dermatologists ensure patients’ safety by using a diluted concentration of the toxin for procedures. “With the amount that’s in one vile of what we use to treat patients, you would need 300 viles to cause any problems,” Crutchfield says. The substance is injected directly into the muscles that cause wrinkles in order to relax them, softening frown lines, furrows, and crow’s feet. The procedure is performed in one office visit, and patients can immediately return to work.

However, the results are temporary. Patients need to return to their doctor every four to six months to maintain their younger-looking appearance. “Once you achieve the look you want, then you maintain it,” Crutchfield says. “Some patients say, ‘I have to redo this every six months!’ Well how often do you have your hair color touched up or your nails redone?”

Compared to a surgical facelift—which may cost thousands of dollars and require significant healing time—Botox is relatively convenient and inexpensive. For example, treating a single area, such as the forehead, costs $300 to $400.

Because of its ease and effectiveness, Botox is becoming increasingly popular. According to the ASAPS, more than 2.6 million Botox injection procedures were performed in the United States in 2004. “The operative phrase is ‘less is more,’” Crutchfield says. “Botox is probably the number one non-surgical procedure in the United States today.”

Search for the perfect filler
Cosmetic dermatologists use other treatments to repair aged or damaged skin on the rest of the face. One method is to make the skin plumper by injecting materials, such as collagen, underneath the surface.

Collagen is a natural substance that is already present in the skin and promotes elasticity. Another natural substance called “hyaluronic acid” is also a crucial component of human skin. As we age, the body produces less collagen and hyaluronic acid, causing the skin to become wrinkled. Replacing these substances restores the skin’s volume, thus smoothing out wrinkles.

The collagen used for cosmetic procedures is usually derived from cows, and has been in use since the 1970s. The results from bovine collagen are short-lived, because the body naturally dissolves the foreign substance in only a few months. Many patients also develop allergic reactions to bovine collagen.

In search of a better alternative, many dermatologists are switching to human bioengineered collagen, or they’re using hyaluronic acid to safely replace the other component found in skin.

Recently approved by the FDA, hyaluronic acid works by connecting the natural collagen and another compound in the skin called elastin to create a framework under the skin. This framework then absorbs water and builds volume, which fills in the wrinkles. The effects of hyaluronic acid last longer than collagen, without posing the risk of an allergic reaction. However, hyaluronic acid gel does not contain any anesthetic to numb the pain of the injections. As with collagen, there is usually temporary inflammation following the injection. Hyaluronic injections cost $500 to $1,000. Collagen tends to cost a bit less, starting at $450.