Phototherapy:
Phototherapy is one of the most popular treatments for psoriasis because it is not thought to have internal side effects and is often very effective. This is most commonly given in the form of narrowband UVB phototherapy. In this treatment the patient typically stands in a box containing large light bulbs. The treatment is similar to a tanning bed, but the type of light is different. This treatment is typically done in our office 2–3 times weekly. Some patients also choose to purchase their own unit for home use, which is sometimes partially reimbursed by insurance. Risks of this treatment include sunburn and, if used for many years, a possible increase in the risk of skin cancer. All patients on chronic phototherapy treatments should receive a full skin exam at least annually.

Steroid injections:
These may be injected into individual psoriasis lesions (for localized involvement) or given intramuscularly (usually in the buttock) for more widespread involvement. This may be a good option if the effect lasts at least several months – the intramuscular injection may only be used a few times yearly.

Biologics:
These medications are probably the most commonly prescribed internal treatment for psoriasis. Common examples are Enbrel, Humira, and Stelara. Most are administered via subcutaneous injection (patients self-administer using a “pen” that contains the medication – like an “Epi-pen”). These medications are generally very effective. They work by blocking a part of the immune system that is involved in causing psoriasis. Their primary risk is increased infections, although this is rare in healthy individuals. The major drawback to these medications is their expense: most of these cost around $30,000–$60,000 per year (as of 2017). Because of their expense, many insurance companies will require that you have failed other therapies before covering these medications.

Otezla (apremilast):
Ustekinumab was approved by FDA in 2014. It is the first pill for psoriasis that has been approved in over 20 years. It blocks an enzyme called PDE-4 and thus functions as an anti-inflammatory agent. Head-to-head studies have shown the biologics to generally be more effective than Otezla, but some patients prefer this over the biologics due to the fact that it is a pill rather than an injection, and because it is anti-inflammatory rather that immunosuppressive (thus possible lower risk of infections compared with the biologics). The most common side effect is stomach upset/diarrhea (typically resolves after the first week or two). There have been rare reports of depression.

Methotrexate:
Methotrexate is a pill that works by blocking an enzyme involved in the growth of cells. It has been around since the 1950s; initially for treating certain types of cancer. Methotrexate may cause several side effects; the most common are nausea and fatigue. Other possible side effects include sores in the mouth, anemia, liver toxicity, decreased white blood cell count, increased risk of infections, hair loss, and diarrhea. It can cause birth defects if taken during pregnancy. Because of the concern about liver toxicity, blood tests are ordered periodically, and patients who reach a cumulative dose of 3g are usually advised to have a liver biopsy before continuing treatment with methotrexate. For most patients this takes over a year of treatment. Alcohol consumption may increase the risk of liver toxicity from methotrexate. It is relatively inexpensive and is usually covered by insurance.
Psoriasis Treatment Options

**Soriatane (acitretin):**
A pill that works by slowing the growth of psoriatic skin cells. It must not be used by women of child-bearing potential, as it may cause birth defects up to 3 years after it is stopped. Side effects may include chapped lips, dry skin, elevated cholesterol, hair loss, and liver toxicity. This medication requires monitoring with periodic blood tests. Long-term therapy may increase the risk of bone spurs. Soriatane is often combined with other treatments for psoriasis, particularly phototherapy. Drinking alcohol regularly may increase the risk of liver toxicity from Soriatane.

**Cyclosporine:**
A pill that suppresses the immune system and slows down the growth of certain immune cells. Cyclosporine is also used to prevent rejection of transplanted organs. For psoriasis it is usually used on a short-term basis (less than a year) to get the psoriasis under control for a time. It requires monitoring with frequent blood tests. Side effects may include kidney toxicity, increased blood pressure, headache, elevated cholesterol, nausea, fatigue, increased growth of gum tissue, and an increased risk of infection.