

# Understanding Autoimmune Skin Disease

**What is an “autoimmune” disease?** Autoimmune refers to the immune system attacking normal structures in the body. Normally, the immune system can differentiate between ‘self’ proteins and foreign or abnormal things in the body, but in these diseases the immune system attacks normal proteins as if they are foreign or infectious invaders.

**What is the cause of an autoimmune skin disease?** In most cases, is unknown exactly how or why a patient develops this type of disease. But in each case, the immune system ‘attacks’ or reacts to normal, ‘self’. In some cases, this occurs because a normal protein has been altered by absorption of a medication (as in a drug reaction) or damaged in some way (as in UV light damage). This leads to inflammation and damage to the otherwise normal structures. Specific diseases have identified risk factors that favor the development of the disease, such as sunlight or drug exposure, genetic factors (certain breeds are predisposed), or inflammation in other parts of the body (often from cancer).

**There are many different autoimmune diseases.** Some autoimmune diseases are very specific and only effect one organ system (i.e. the skin), while others involve multiple organs. There are numerous differences between the many diseases, including how severe they may be, how well they respond to treatments and which medications are most effective. Here is a partial list of the more common autoimmune diseases (and the number of subtypes); pemphigus (five types), lupus (four types), pemphigoid (two types), drug reactions (three types) and vasculitis (many types). There are many other diseases that fit into the auto-immune category.

**How are these diseases diagnosed?** In most cases, a biopsy of effected tissue is required for diagnosis. Blood work and urine testing is sometimes helpful for differentiating between diseases or determining how severe they may be.

**How are autoimmune diseases treated?** Removing the eliciting factor (as in a drug reaction) can lead to a cure, but in most cases this is not possible. Most autoimmune disease cannot be cured. Long term treatment should be anticipated. Goals of therapy are to prevent clinical lesions and minimize side effects from the treatments. The mainstay of therapy for autoimmune diseases is immunosuppression. This means suppressing the immune system so it is unable to cause the inflammation that leads to the clinical signs. In most cases, several drugs are used in combination. Multiple drugs are used to reduce the dose and side effects from each individual treatment and they may act synergistically. Many drugs are used, but a few of the more common options are; corticosteroids (prednisone), cyclosporine (atopica), azathioprine (immuran), and chlorambucil. Each drug has advantages and disadvantages that should be carefully discussed before using them. In most cases, blood work monitoring is required when giving these medications.