Acanthosis Nigricans is a skin condition that signals high insulin levels in the body. Insulin is produced by an organ called the pancreas. Insulin is important because it helps "carry" the glucose or sugar to the cells in your body. High insulin levels indicate that the body is resisting the insulin that is being produced. As a result, the pancreas produces more insulin than needed, and through time, it can stop producing enough insulin to take the glucose to the cells in the body. Acanthosis Nigricans is important because these markings can help identify persons who run the risk of developing diabetes in the future.

Acanthosis Nigricans is important because of the increasingly alarming rates of persons developing Type 2 diabetes. Until recently, it was believed that children could not develop Type 2 diabetes. However, children can. Acanthosis nigricans screenings can help identify persons who have high insulin levels and who may be at-risk for developing the disease. Once identified, the necessary measures to lower the insulin levels and reduce the risk of developing diabetes can be taken. Exercise and proper nutrition will help the body become more sensitive to insulin and lower insulin levels. Similarly, the acanthosis nigricans markers will begin to fade.

Scientists have also found that having high insulin levels over long periods of time can increase the risk of the following conditions:

- Obesity
- Cardiovascular problems
- Hypertension
Increased cholesterol and triglycerides

In females, high insulin levels may increase the risk of developing Polycystic Ovarian Syndrome that is characterized by irregular menstrual cycles, extreme facial hair, and severe acne and enlarged ovaries.

**What Can Be Done About Acanthosis Nigricans?**

Acanthosis nigricans is a marker that signals elevated insulin levels and a risk of developing diabetes and other conditions in the future. Taking immediate action may help delay or prevent the health conditions associated with high insulin levels. Acanthosis nigricans is frequently associated with obesity.

What steps can be taken if acanthosis nigricans is present? 1) Visiting your physician and getting the appropriate exams to determine the status of your glucose is a good idea. From there, your physician may recommend some 2) **nutritional counseling** and 3) **exercise** to help your body become more sensitive to the insulin it produces.

This was developed by The University of Texas Pan American Border Health Office.