

**THE MAJOR METABOLIC COMPLICATIONS OF IPS: DIABETES, PRE-DIABETES  
& EXCESS CHOLESTEROL**

IPS is constant pain with cardiovascular, metabolic, and hormonal complications. Constant pain is a severe stress that causes the adrenal hormones- cortisol and adrenalin, to rise in the blood in the body's attempt to eliminate stress. These hormonal elevations lead to serious metabolic consequences that need to be well known to persons who have IPS as well as their family and medical practitioners.

**END RESULT OF CONTINUOUS ELEVATED CORTISOL AND ADRENALINE**

When cortisol is elevated, it causes the hormone insulin and blood sugar (glucose), to rise in the blood. Adrenalin causes blood pressure and pulse rate to rise. In summary, a person with IPS will raise adrenalin and cortisol which in turn raises blood sugar (glucose), cholesterol, blood pressure, and pulse rate. If blood sugar remains too high, for too long one develops blatant diabetes or pre-diabetes, which is often called "insulin resistance."

**YOUR CARDIOVASCULAR-METABOLIC RISKS**

When one has persistently elevated blood sugar, cholesterol, blood pressure, and pulse rate, one is at high risk to develop or experience any or all of the following:

- |               |                         |                   |
|---------------|-------------------------|-------------------|
| ·Heart Attack | ·Heart Pain<br>(Angina) | ·Stroke           |
| ·Dementia     | ·Diabetes               | ·Arteriosclerosis |

**SUDDEN DEATH RISK**

Some persons with IPS have died suddenly, and unexpectedly or sometimes they die while asleep. Often, they have been falsely accused of "overdose." There are 3 reasons for sudden, unexpected death in persons with IPS who are undertreated and have cardiovascular, metabolic, and hormonal complications.

- |                     |                  |                                   |
|---------------------|------------------|-----------------------------------|
| ·Cardiac Arrhythmia | ·Adrenal Failure | ·Hypoglycemia<br>(Excess Insulin) |
|---------------------|------------------|-----------------------------------|

**ACTIONS TO TAKE**

Every person with IPS needs evaluation for diabetes, pre-diabetes, hypertension, tachycardia, and excess cholesterol. Steps must be taken to eliminate or reduce any or all of these IPS complications. Consult your medical practitioner at your earliest opportunity for an evaluation of these complications.

**THE HORMONE-METABOLIC CONNECTION**

Most persons believe that diabetes is a metabolic disease and is unrelated to hormones. The fact is that insulin, cortisol, and adrenalin are hormones.

**IPS Definition: Constant pain with cardiovascular, metabolic, and hormonal complications.**

Published as a public service by the  
Intractable Pain Syndrome Research & Education Project of the **Tennant Foundation**  
336-338 S. Glendora Ave. West Covina, CA, 91790-3043 Phone: 626-716-2689 Fax: 626-919-7497  
E-mail: [tennantfoundation92@gmail.com](mailto:tennantfoundation92@gmail.com) [www.arachnoiditishope.com](http://www.arachnoiditishope.com)  
[www.intractablepainsyndrome.com](http://www.intractablepainsyndrome.com)

This information is not intended to diagnose, treat, cure, or prevent any disease, as this information is for educational purposes only, and is not a substitute for medical advice, diagnosis, or treatment. Please refer to your local qualified health practitioner for all medical concerns.