Symptoms of Cushing's include:

Abdominal weight gain Red, round "moon" face Thinning extremities " Buffalo hump"

High blood pressure High blood sugar Muscle weakness Osteoporosis/Fractures Infections Blood clots

Easy bruising Thin skin Poor wound healing Acne Purple striae Hirsutism Female balding Menstrual irregularity

Sleep disorders Excessive hunger Excessive thirst Frequent urination Sweating

Anxiety Confusion Concentration loss Memory loss Depression Suicidal thoughts Panic attacks



Illustration from Mayo Clinic Family Health Book, 2d. ed., 1996



The Cushing's Support and Research Foundation was established in 1995 to provide information and support to Cushing's patients and their families. Incorporated as a non-profit organization in the state of Massachusetts, the CSRF is an Associate Member of NORD, maintains a Medical Advisory Board consisting of very experienced surgeons and endocrinologists who are world renowned for their expertise in Cushing's, publishes a newsletter, exhibits at medical conventions to increase awareness, and provides a networking service to put patients and families in contact with each other.

The Cushing's Support and Research Foundation 60 Robbins Road #12 Plymouth, MA 02360 Cushinfo@CSRF.net

www.CSRF.net



Normal appearance after treatment



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Weight gain

Diabetes

High blood pressure

or **Cushing's Syndrome?**

Cushing's Syndrome has many symptoms, including weight gain and a change in appearance.



Normal appearance

With Cushing's

Conditions such as weight gain, diabetes and high blood pressure—which together are termed Metabolic Syndrome—are increasing dramatically in the population. In some cases, these and a multitude of other symptoms are caused by a little known disorder called Cushing's Syndrome. Recent reports in the medical literature indicate that 3–5% of poorly controlled diabetics actually have Cushing's Syndrome.

What is Cushing's Syndrome?

Cushing's Syndrome results from exposure of the body to too much of an adrenal hormone called cortisol. While the most common cause of Cushing's is the prolonged use of cortisone drugs, such as prednisone, commonly prescribed for asthma or arthritis, approximately 10–15 people per million are affected by Cushing's due to over production of cortisol by the body's adrenal glands. Cushing's Syndrome in adults affects more females than males and, while rare, Cushing's can also occur during childhood.

Normally, the pituitary gland stimulates the adrenal gland to release the exact amount of cortisol that is needed. Overproduction of cortisol can be caused by:

- A pituitary tumor that causes the pituitary gland (located at the base of the brain) to stimulate the adrenal glands to secrete high levels of cortisol
- A tumor in the adrenal glands
- A benign or malignant tumor on the lung or some other organ.



Normal appearance 1 year after treatment

With Cushing's

What are the symptoms?

The primary symptoms are listed in the box, but it is important to recognize that each Cushing's patient presents slightly differently. Not all patients experience every symptom and symptoms do not seem to appear in any particular order. While some patients experience very rapid changes, others report a gradual onset.

At some point during Cushing's, virtually all patients will experience a change in appearance, including weight gain, a redistribution of fat to the face ("moon face") and the upper back ("buffalo hump"), and thinning extremities due to muscle weakness. Early in the disorder these symptoms may be mild, but they progress the longer the disorder goes undiagnosed.

Patients often report the **weight gain** as being unstoppable:

"I went to every weight loss center, exercised, underwent hypnosis, tried every diet imaginable, but could never lose any weight."

Other patients focus on the **muscle weakness**:

"I got so weak I could barely climb stairs, had a hard time getting out of a car, and needed two hands to hold a glass of water."

Sleep disorders, easy bruising, bone fractures, poor wound healing, menstrual problems, facial hair growth (hirsutism), depression, and cognitive difficulties are also common. The purple stretch marks (striae) experienced by many patients are considered to be somewhat more specific for Cushing's than some other symptoms.

What should I do if I think I have Cushing's Syndrome?

Make an appointment with your physician and tell them about all of your symptoms. Take pictures with you that illustrate the change in your appearance.

The diagnosis of Cushing's requires laboratory tests to determine if cortisol levels are increased. Cortisol levels are normally highest in the morning and very low at night time. Thus, one common screening test involves the collection of urine over a 24-hour period. More recently, a salivary cortisol test done at 11pm has been found to be more sensitive in identifying early cases of Cushing's. Mild and cyclic cases of Cushing's can be difficult to diagnose.

If your cortisol is elevated, you will be referred to an endocrinologist—a physician who specializes in hormonal disorders. More information on testing can be found on the Cushing's Support and Research Foundation website at www.CSRF.net.

> It is essential that Cushing's be diagnosed, for if left untreated, Cushing's Syndrome can be fatal.

"It took 3 years, visits to 21 doctors, and a long struggle with a multitude of symptoms to get a diagnosis. I'd never had high blood pressure or blood sugar before. I couldn't sleep, got very depressed, and was so weak that it was an effort to move at all. I couldn't concentrate enough to read, and actually quit driving. My diagnosis was such a relief!"