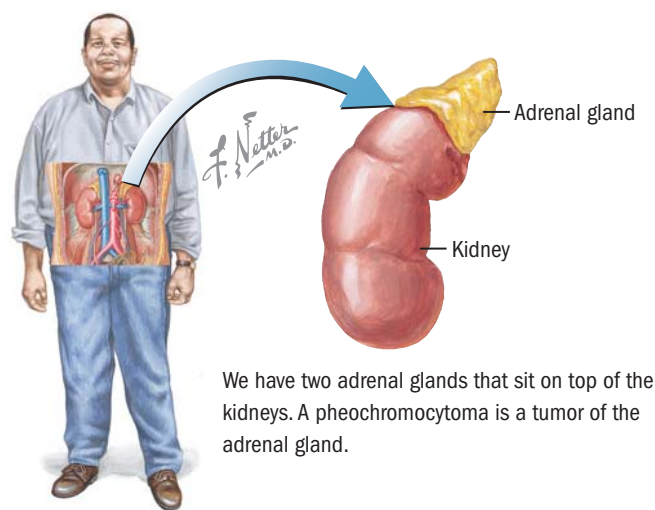
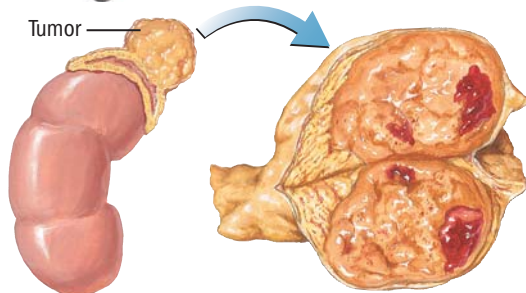


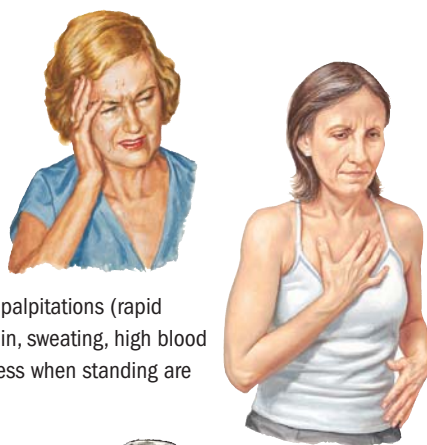
# MANAGING YOUR PHEOCHROMOCYTOMA



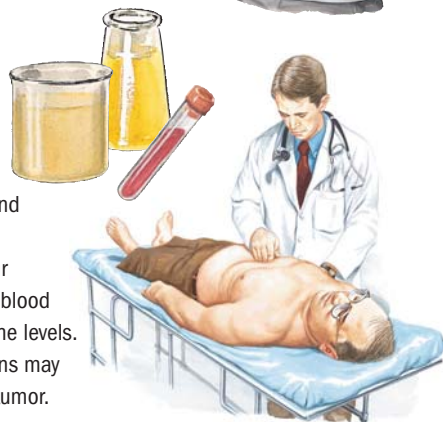
We have two adrenal glands that sit on top of the kidneys. A pheochromocytoma is a tumor of the adrenal gland.



The cause of adrenal gland tumors is unknown.



Headaches, anxiety, palpitations (rapid heartbeat), chest pain, sweating, high blood pressure, and dizziness when standing are common symptoms.



If your medical history and examination suggest a pheochromocytoma, your doctor will do urine and blood tests to measure hormone levels. CT or MRI and other scans may be done to look for the tumor.

## What Is Pheochromocytoma?

Humans have two adrenal glands located above the kidneys. They make substances called hormones that regulate blood pressure, fluid metabolism, and other body functions. A pheochromocytoma is an uncommon tumor of the adrenal gland. Rarely, this type of tumor develops outside the adrenal glands.

Pheochromocytomas secrete a hormone called epinephrine or related compounds. High blood pressure, heart palpitations, headaches, and sweating are the result. Pheochromocytomas account for a very small number of hypertension cases.

## What Causes Pheochromocytoma?

The cause is unknown. Most tumors aren't related to family history, but about 10% are part of familial endocrine tumor disorders.

## What Are the Symptoms of Pheochromocytoma?

Common symptoms are headaches that come and go, anxiety, palpitations (abnormal, rapid heartbeats), sweating, high blood pressure, heat intolerance, and dizziness when standing. Some people have none.

Uncontrolled hypertension can cause vision loss, heart disease, kidney disease, and stroke.

## How Is Pheochromocytoma Diagnosed?

Your doctor may suspect a pheochromocytoma because of your medical history and physical examination. Urine and blood tests will be done to measure hormone levels. One urine test, a 24-hour collection, measures substances called catecholamines. You shouldn't drink alcohol or caffeine or take amphetamines, benzodiazepines, certain antidepressants, or lithium when doing the test. These substances may lead to false high levels.

Magnetic resonance imaging (MRI), CT, and other scans may be done to look for the tumor. Tumors outside the adrenals may need whole-body imaging with special nuclear medicine tests.

## MANAGING YOUR PHEOCHROMOCYTOMA



More than 90% of pheochromocytomas are in the adrenal glands and are cured with surgical removal.



Before surgery, increase your fluid and salt intake and have your blood pressure closely monitored.



Cancerous pheochromocytomas cannot be cured with surgery and need a combination of chemotherapy, radiation therapy, and other treatments.

Don't exercise strenuously until your pheochromocytoma is removed.



Call your doctor if you have a severe headache, chest pains, palpitations, ankle swelling, or other symptoms.



### How Is Pheochromocytoma Treated?

More than 90% of pheochromocytomas are in the adrenal glands and can be cured with surgery. Medicines to control blood pressure should be given before surgery.

Complications from surgery include bleeding and infection. Temporary low and high blood pressure readings can occur while the tumor is being removed.

Pheochromocytomas that are malignant and have spread cannot be cured with surgery. A combination of chemotherapy, radiation therapy, and other treatments is used to help control the disease.

### DOs and DON'Ts in Managing Pheochromocytoma:

- ✓ **DO** tell your doctor if you had pheochromocytomas before or family members have endocrine tumors. Your family may need screening blood or urine tests.
- ✓ **DO** call your doctor if you have vision changes, severe headache, weakness on one side of the body, chest pains, or increasing palpitations.
- ✓ **DO** call your doctor if you have ankle swelling, shortness of breath, or weakness or dizziness when standing.
- ✓ **DO** call your doctor if symptoms return after surgery.
- ⊗ **DON'T** do strenuous exercise until your pheochromocytoma has been removed.
- ⊗ **DON'T** expect that your high blood pressure will be completely normal after the operation. Some permanent changes may have already occurred in the kidneys and blood vessels.

### FROM THE DESK OF

#### NOTES

### FOR MORE INFORMATION

#### Contact the following sources:

- National Adrenal Diseases Foundation

Tel: (516) 487-4992

Website: <http://www.nadf.us/>

- The Endocrine Society

Tel: (888) 363-6274

Website: <http://www.endo-society.org>