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URL of this page: //medlineplus.gov/ency/article/000326.htm

## Glucagonoma

Glucagonoma is a very rare tumor of islet cells of the pancreas, which leads to an excess of the hormone glucagon in the blood.

### Causes

Glucagonoma is usually cancerous (malignant). The cancer tends to spread and get worse if not treated.

This cancer affects some of the islet cells of the pancreas. As a result, the affected islet cells produce too much of the hormone glucagon.

The cause is unknown. Genetic factors play a role in some cases. A family history of the syndrome multiple endocrine neoplasia type I (MEN I) is a risk factor.

### Symptoms

Symptoms of glucagonoma may include any of the following:

- Glucose intolerance (body has problem breaking down sugars)
- High blood sugar (hyperglycemia)
- Diarrhea
- Excessive thirst (due to high blood sugar)
- Frequent urination (due to high blood sugar)
- Increased appetite
- Inflamed mouth and tongue
- Nighttime (nocturnal) urination
- Skin rash on face, abdomen, buttocks, or feet that comes and goes, and moves around (necrolytic migratory erythema)
- Weight loss

In most cases, the cancer has already spread to the liver when it is diagnosed.

### Exams and Tests

Your health care provider will perform a physical exam and ask about your medical history and symptoms.

Tests that may be done include:

- CT scan of the abdomen
- Glucagon level in the blood
- Glucose level in the blood
- Genetic tests

## Treatment

Surgery to remove the tumor before it spreads is usually recommended. Chemotherapy may be done when surgery is not possible.

## Support Groups

You can ease the stress of illness by joining a cancer support group. Sharing with others who have common experiences and problems can help you not feel alone.

## Outlook (Prognosis)

Approximately 60% of these tumors are cancerous. It is common for this cancer to spread to the liver. Only about 20% of people can be cured with surgery.

If the tumor is only in the pancreas and surgery to remove it is successful, people have a 5-year survival rate of 85%.

## Possible Complications

The cancer can spread to the liver. High blood sugar level can cause problems with metabolism and tissue damage.

## When to Contact a Medical Professional

Contact your provider if you notice symptoms of glucagonoma.

## Alternative Names

Glucagonoma syndrome; 4D syndrome; Endocrine-secreting islet cell tumor - glucagonoma

## References

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Updated August 16, 2024. Accessed October 14, 2024.

## Review Date 10/1/2024

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Health Content  
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06/01/2028

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