

## Glucagon - Like Peptide 1 (GLP 1)

*Prelims: Current events of national and international importance*

### Why in News?

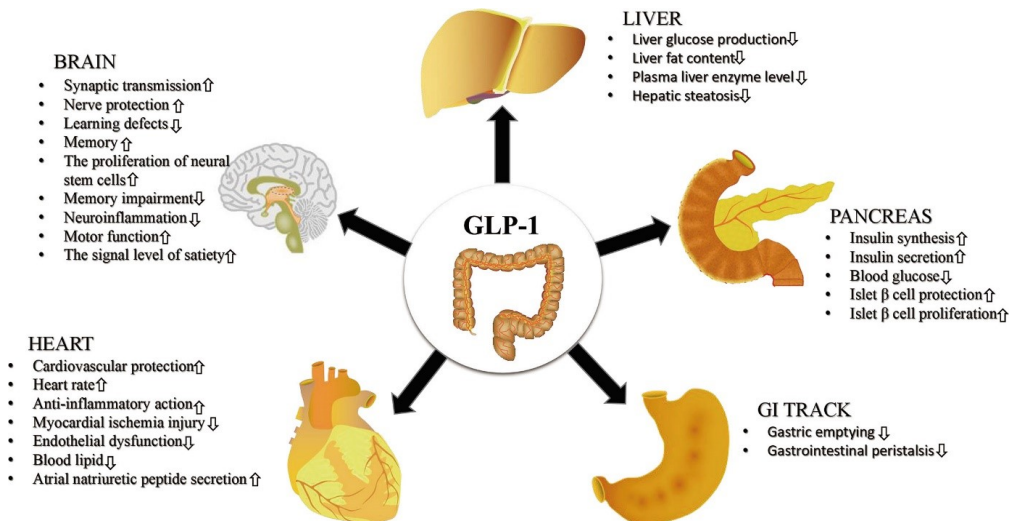
Recently, nearly 12% of Americans have used GLP-1 drugs for weight loss, including about one-fifth of women aged 50 to 64, according to a journal report.

- **Glucagon - Like Peptide 1 (GLP 1)** - It is a naturally occurring peptide hormone.
- It is water soluble molecules ranging for a few 200 amino acids in length.
- It is incretin hormone and a neurotransmitter.

**Incretin hormones** are a group of gut hormones that play a crucial role in regulating blood glucose levels after eating.

**Neurotransmitter** is a chemical messenger that transmits signals between neurons or from neurons to other cells like muscle or gland cells.

- **Secreted from** - The small intestine and from the hindbrain (regulating vital functions and coordinating movement).
- It is produced in the gut by enteroendocrine L-cells after we eat a meal.
- **Features** - Natural GLP-1 is so short-lived.
- GLP-1 works for just a few minutes, so after you eat a meal and GLP-1 is secreted naturally, it gives an immediate effect that lasts maybe 30 minutes.
- To last longer in the body, GLP-1 is attached to fatty acids, which help the drug stick to a blood protein (albumin), which carries
  - Carries it around the body
  - Protects it from being broken down too quickly.
- **Functions** - Travels to the pancreas, where it helps to regulate our blood sugar by increasing insulin and decreasing glucagon. It helps control body weight.
- GLP-1 binds to in many organs in the body, also has beneficial effects in many of these organs, such as the kidney, liver, and cardiovascular system.
- It is chopped up by metabolic enzymes known as DPP-4 and cleared by the kidneys.



- **Blood glucose-dependent** - The GLP-1 start to act only if the blood glucose is elevated.
- **Impacts** - The brain associated with control of hunger and satisfaction, to effectively tell us that we have had enough to eat and need to stop eating.

## References

1. [Medicalxpress| GLP-1](#)
2. [The Indian Express| Glucagon - Like Peptide 1 \(GLP 1\)](#)



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