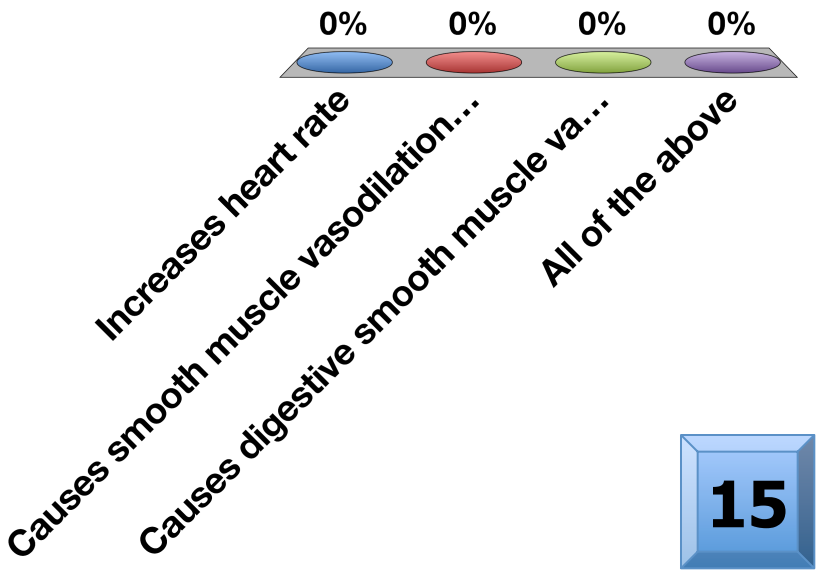
Epinephrine…

A. Increases heart rate
B. Causes smooth muscle vasodilation in skeletal muscle
C. Causes digestive smooth muscle vasoconstriction
D. All of the above

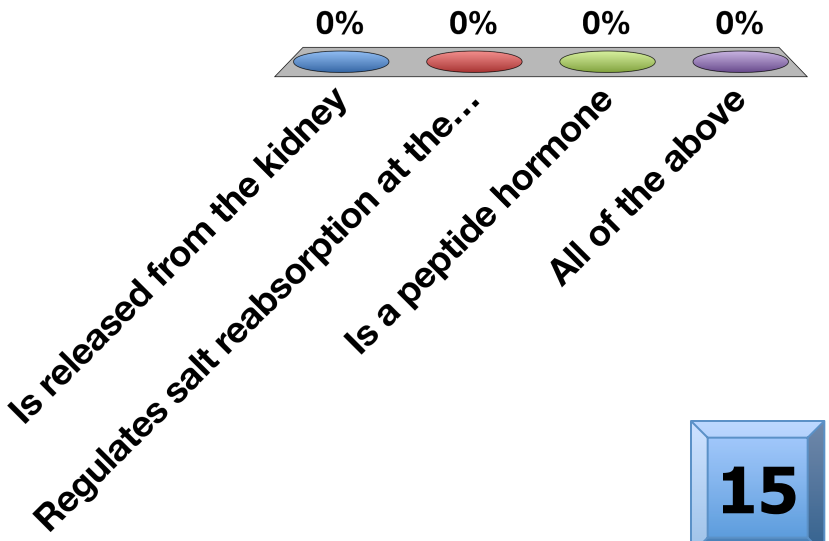
Response Counter



Aldosterone…

A. Is released from the kidney
B. Regulates salt reabsorption at the kidney
C. Is a peptide hormone
D. All of the above

Response Counter



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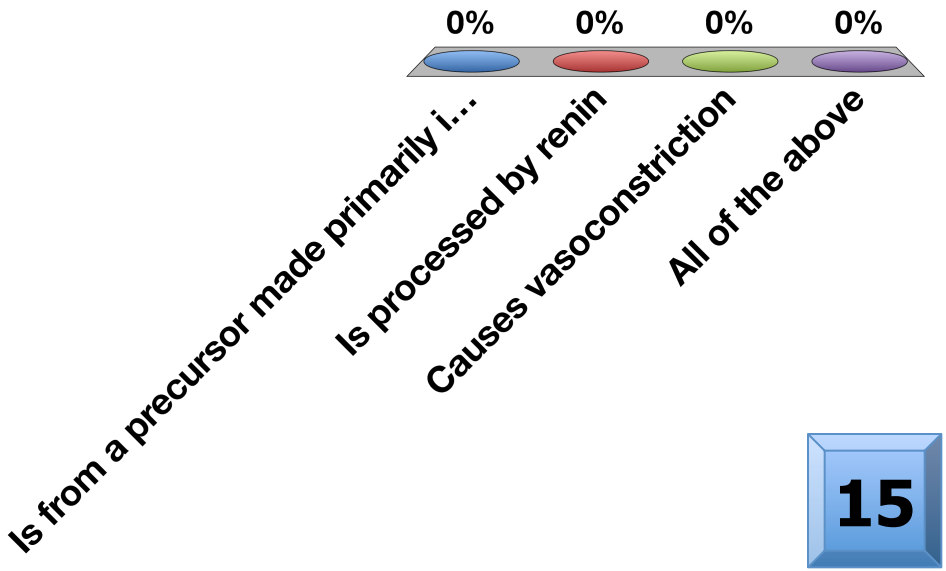
Angiotensin…

A. Is from a precursor made primarily in the liver
B. Is processed by renin
C. Causes vasoconstriction
D. All of the above

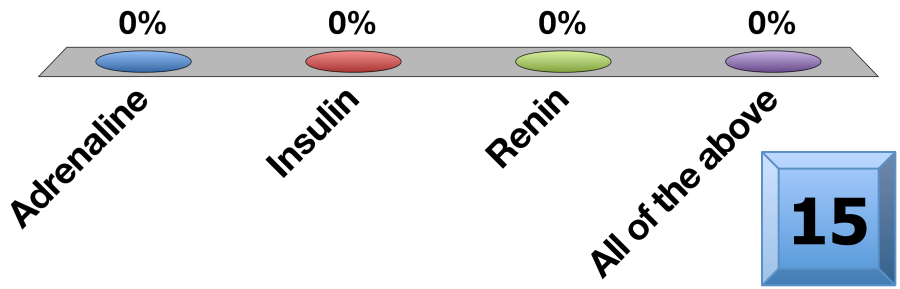
Response Counter



When the fight or flight response increases blood flow to muscles, what is the signal

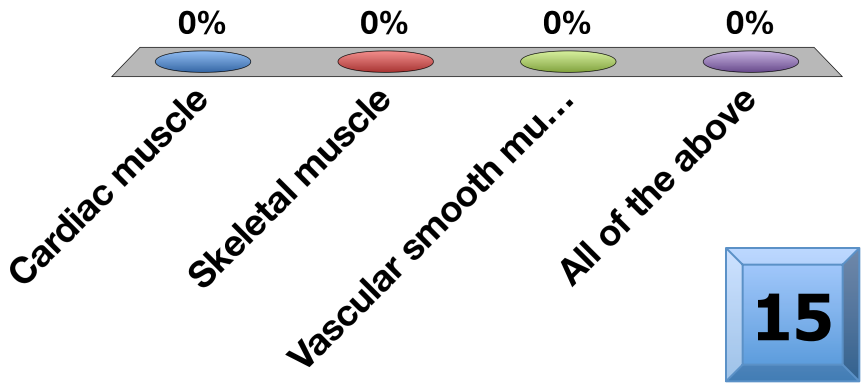
A. Adrenaline
B. Insulin
C. Renin
D. All of the above

Response Counter



What cells respond to that signal

A. Cardiac muscle
B. Skeletal muscle
C. Vascular smooth muscle
D. All of the above



Response Counter

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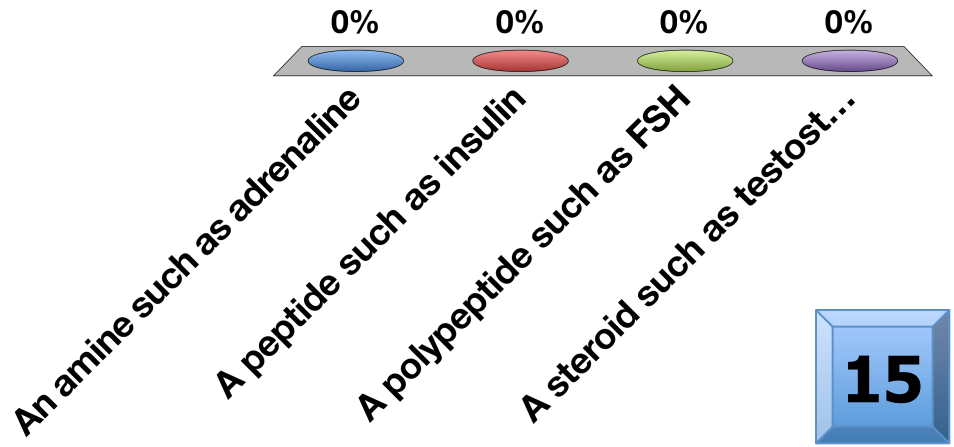
Which hormone type is most likely to be able to cross plasma membranes

A. An amine such as adrenaline
B. A peptide such as insulin
C. A polypeptide such as FSH
D. A steroid such as testosterone

Response Counter



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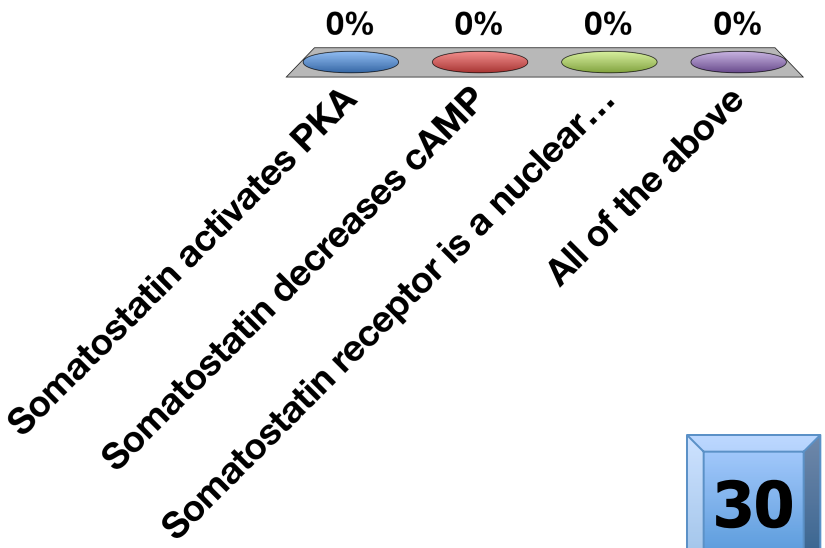
Somatostatin is a Gi-linked GPCR

A. Somatostatin activates PKA
B. Somatostatin decreases cAMP
C. Somatostatin receptor is a nuclear hormone receptor
D. All of the above

Response Counter



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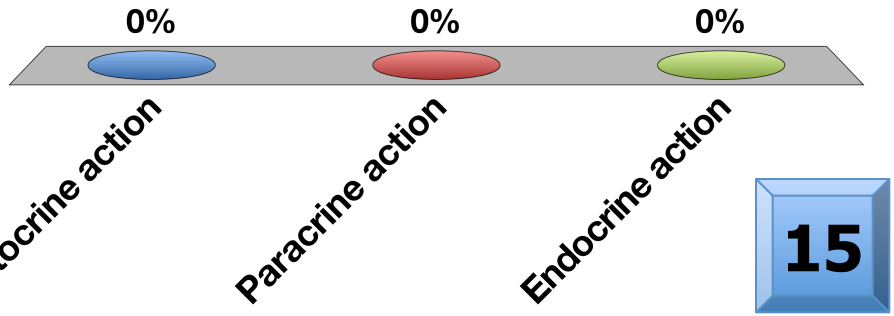
Insulin is released from pancreatic beta cells and is sensed by pancreatic alpha cells to reduce glucagon secretion. This is an example of …

A. Autocrine action
B. Paracrine action
C. Endocrine action

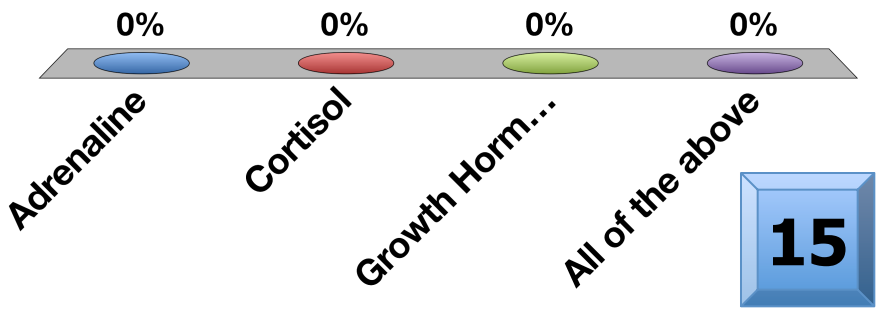
Response Counter



Which hormone is **unlikely** to be BBB-permeable without transport

A. Adrenaline
B. Cortisol
C. Growth Hormone
D. All of the above

Response Counter

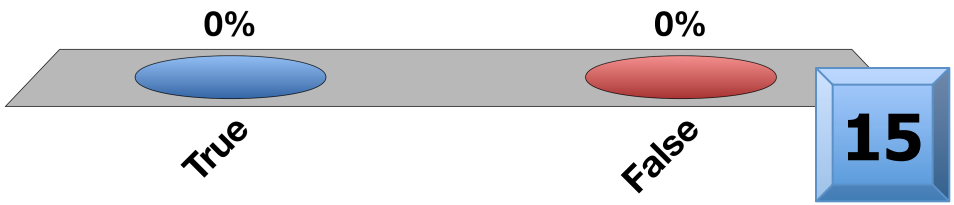


The posterior pituitary is connected to the hypothalamus by direct neuronal contacts

A. True

B. False

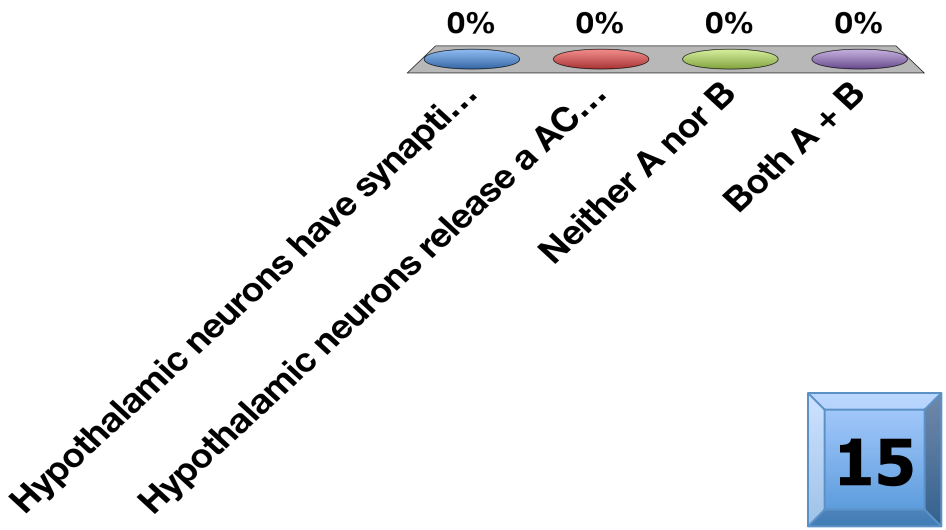
Response Counter



The hypothalamus wants to tell the anterior pituitary to secrete ACTH. How would this be done

A. Hypothalamic neurons have synaptic contacts with ACTH releasing cells
B. Hypothalamic neurons release a ACTH-releasing hormone
C. Neither A nor B
D. Both A + B

Response Counter



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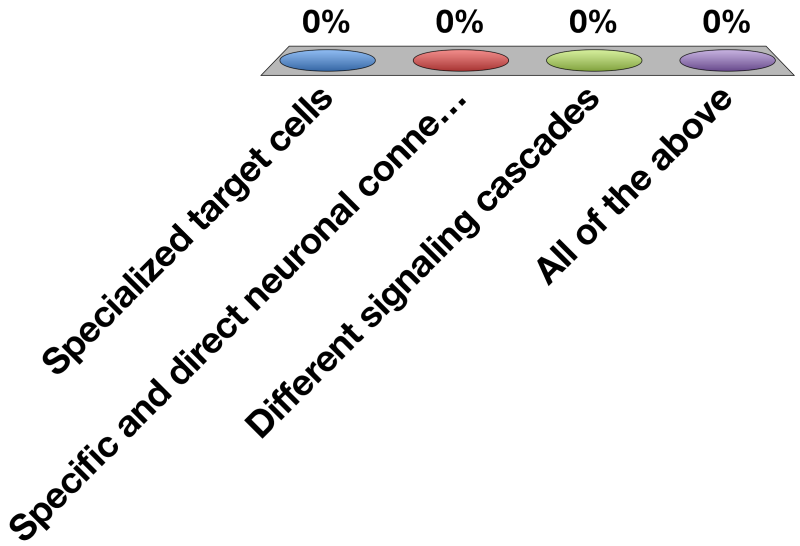
How Is Specificity Achieved in Hypothalamlic-Anterior Pituitary Signaling

A. Specialized target cells
B. Specific and direct neuronal connections
C. Different signaling cascades
D. All of the above

Response Counter



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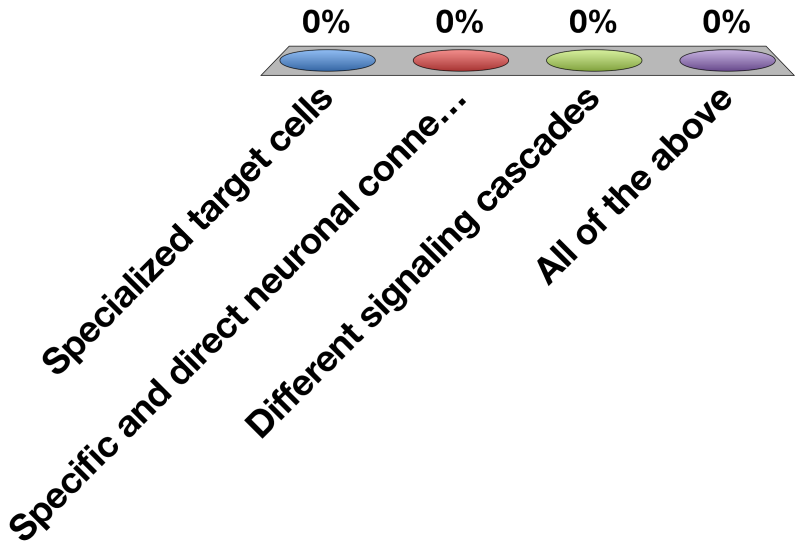
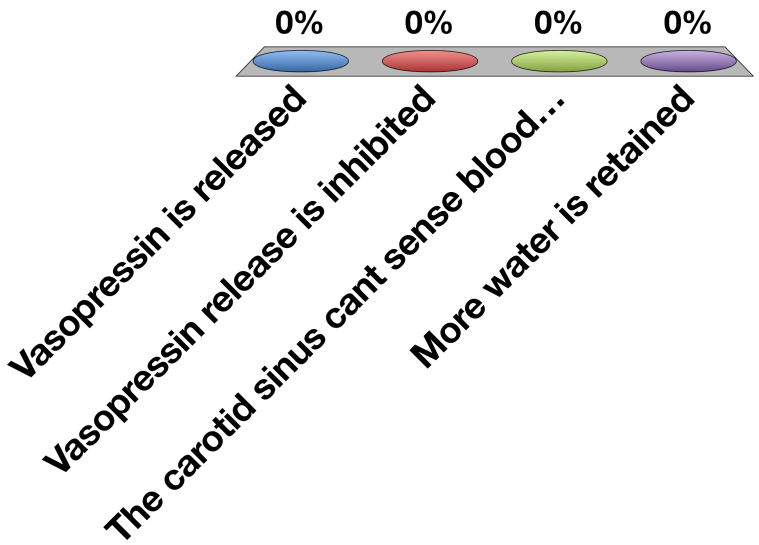


The carotid sinus senses increased blood volume due to drinking too much water…

A. Vasopressin is released
B. Vasopressin release is inhibited
C. The carotid sinus cant sense blood volume
D. More water is retained

Response Counter

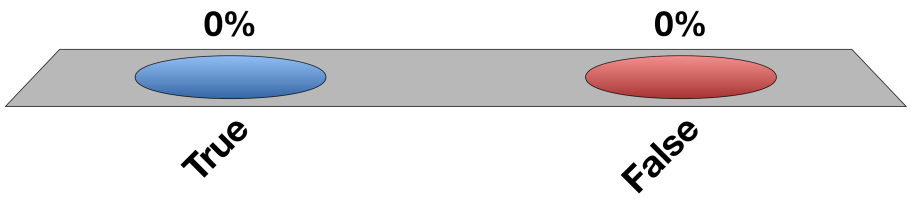


If vasopressin release is activated by ethanol, this would cause increased urination

A. True

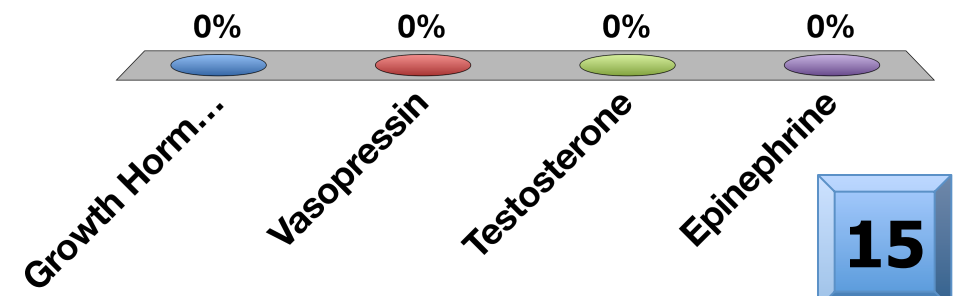
B. False

Response Counter



Which of the following is a peptide hormone

A. Growth Hormone
B. Vasopressin
C. Testosterone
D. Epinephrine



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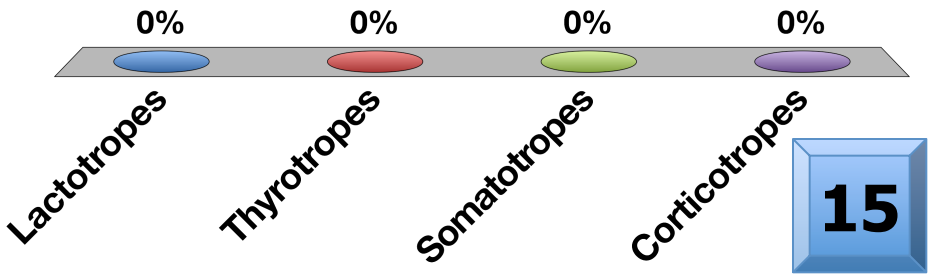
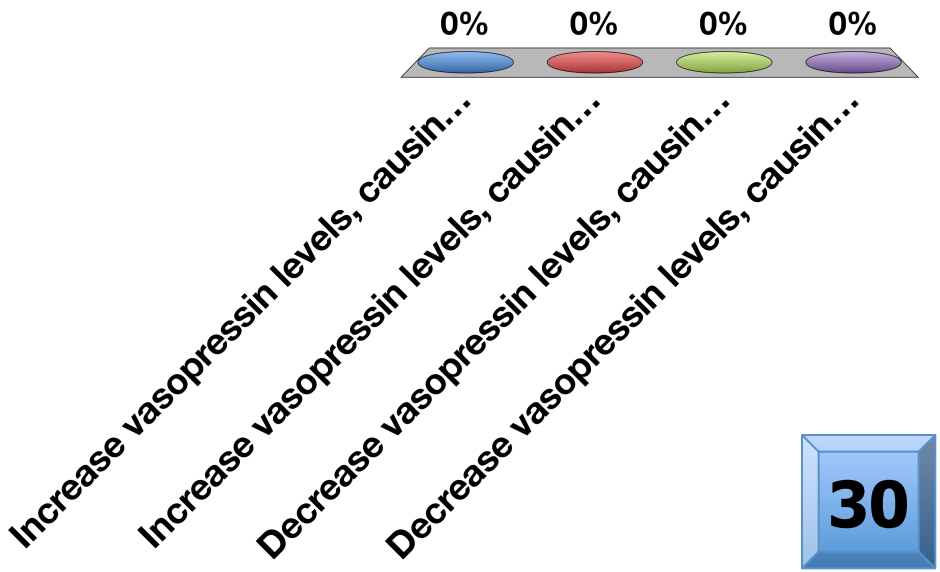
What Cell Type Secretes Growth Hormone

A. Lactotropes
B. Thyrotropes
C. Somatotropes
D. Corticotropes



Drinking a lot of water will…

A. Increase vasopressin levels, causing water reuptake
B. Increase vasopressin levels, causing water excretion
C. Decrease vasopressin levels, causing water reuptake
D. Decrease vasopressin levels, causing water excretion



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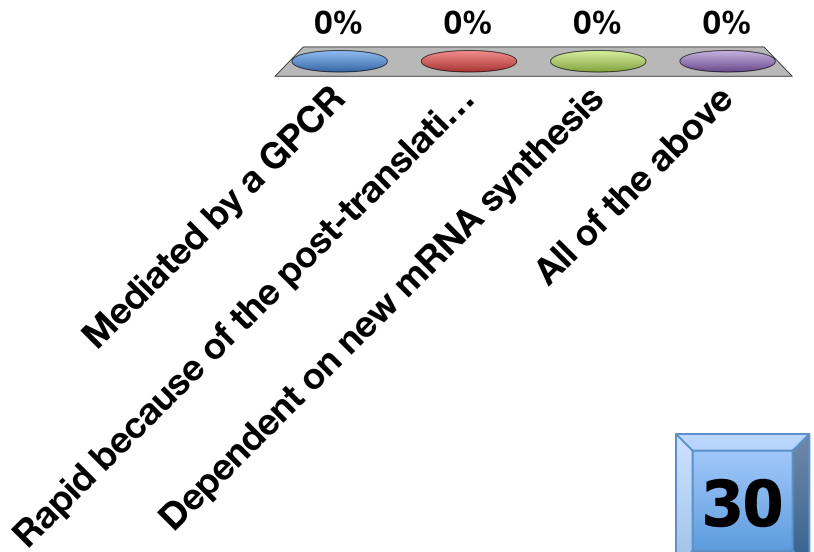
Direct Aldosterone Effects on Cells Are…

A. Mediated by a GPCR
B. Rapid because of the post-translational modification of enzymes
C. Dependent on new mRNA synthesis
D. All of the above

Response Counter



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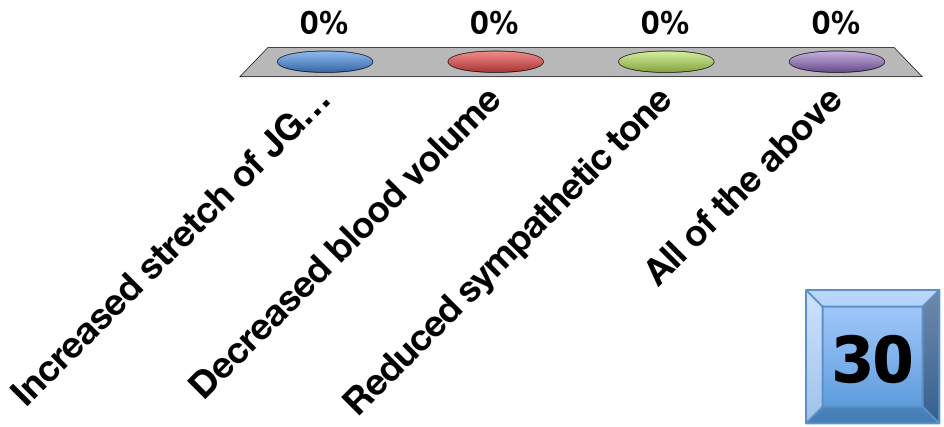
Renin Secretion is Stopped By

A. Increased stretch of JG cells
B. Decreased blood volume
C. Reduced sympathetic tone
D. All of the above

Response Counter



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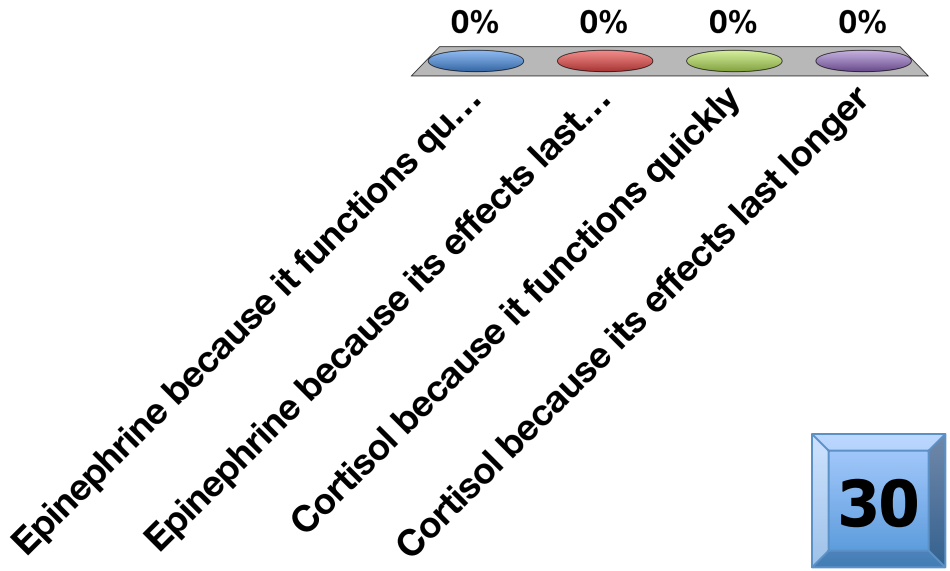
Which hormone should mediate chronic stress responses?

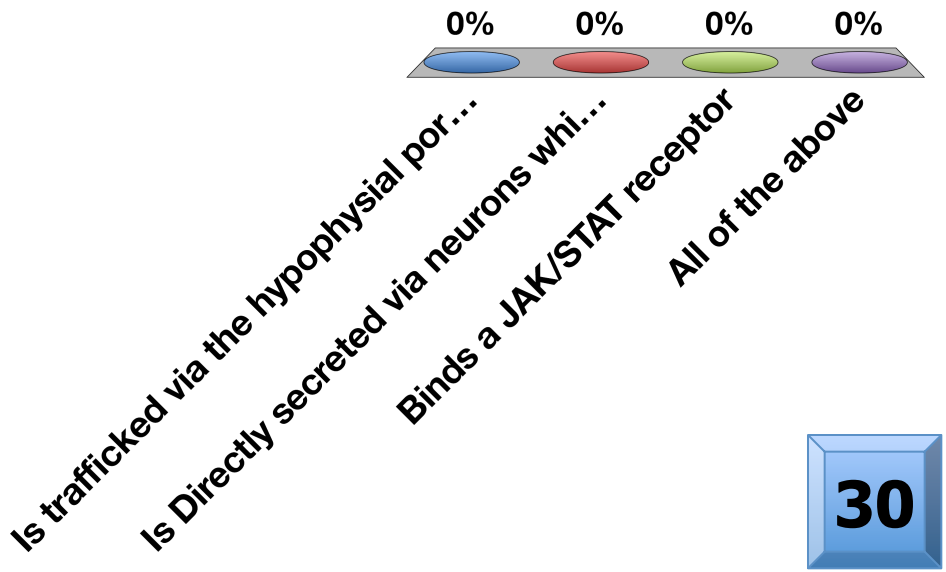
A. Epinephrine because it functions quickly
B. Epinephrine because its effects last longer
C. Cortisol because it functions quickly
D. Cortisol because its effects last longer



CRH is released from the hypothalamus to the anterior pituitary, so therefore…

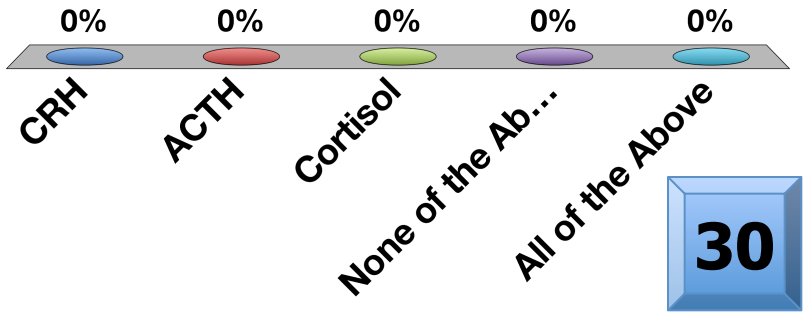
Response Counter

A. Is trafficked via the hypophysial portal system
B. Is Directly secreted via neurons which pass through the infundibulum
C. Binds a JAK/STAT receptor
D. All of the above



Which of these are directly released in a neuroendocrine manner?

A. CRH
B. ACTH
C. Cortisol
D. None of the Above
E. All of the Above

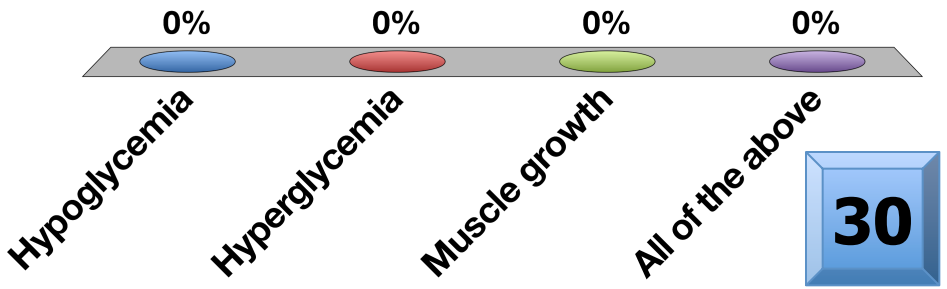


Response Counter

Chronically elevated glucocorticoid signaling would cause

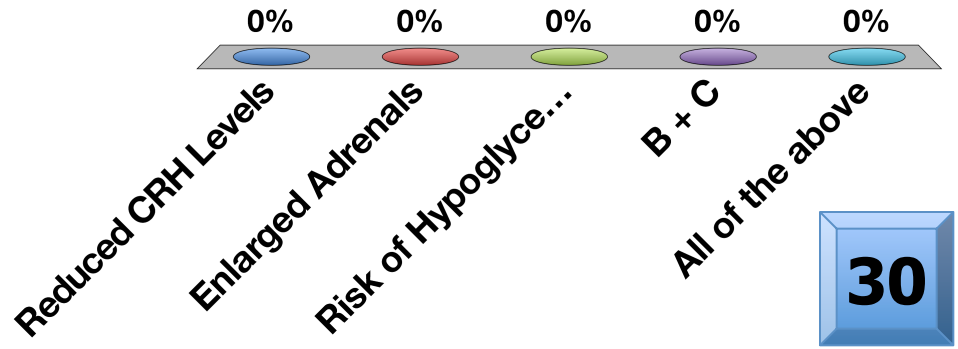
A. Hypoglycemia
B. Hyperglycemia
C. Muscle growth
D. All of the above

Response Counter



A Patient with a type of CAH that can not make Cortisol Would be Expected to have…

A. Reduced CRH Levels
B. Enlarged Adrenals
C. Risk of Hypoglycemia
D. B + C
E. All of the above



Response Counter

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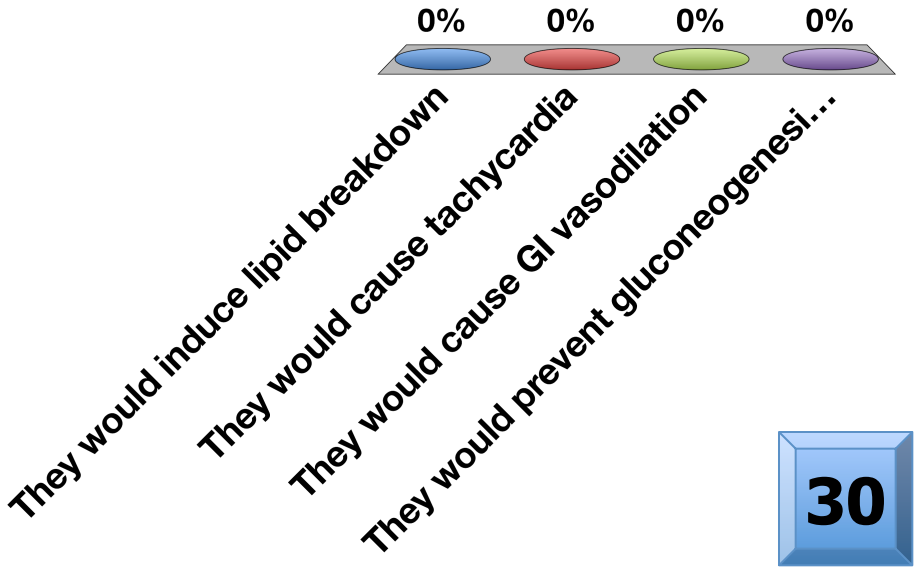
β-AR agonists would be good weight loss drugs except…

A. They would induce lipid breakdown
B. They would cause tachycardia
C. They would cause GI vasodilation
D. They would prevent gluconeogenesis in the liver

Response Counter

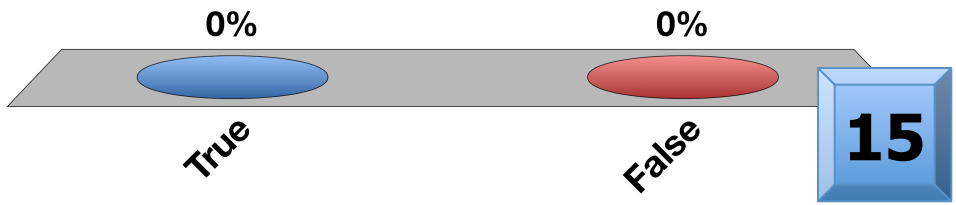


Can you recapitulate all the effects of GH by Providing IGF-1?

A. True

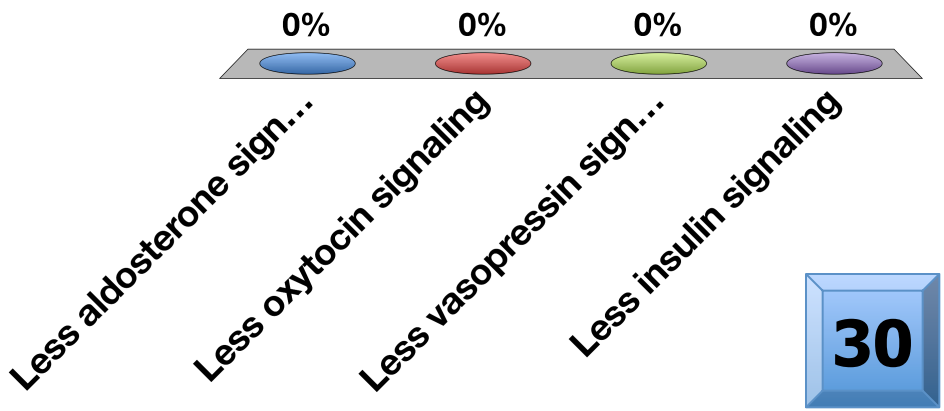
B. False

Response Counter



What causes diabetes insipidus

A. Less aldosterone signaling
B. Less oxytocin signaling
C. Less vasopressin signaling
D. Less insulin signaling



Response Counter

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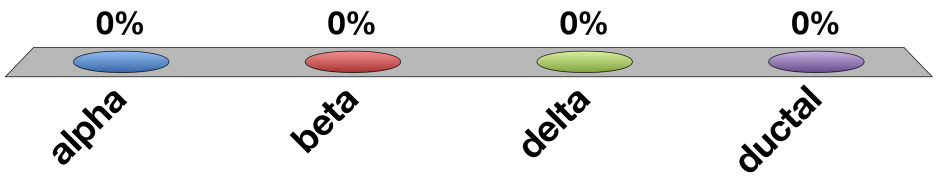
Which are exocrine cells?

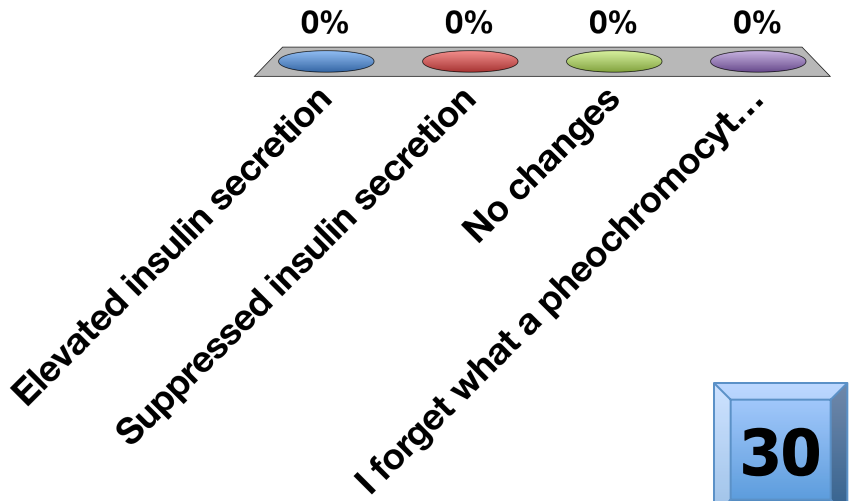
A. alpha
B. beta
C. delta
D. ductal



A patient with a pheochromocytoma should have

A. Elevated insulin secretion
B. Suppressed insulin secretion
C. No changes
D. I forget what a pheochromocytoma is

Response Counter

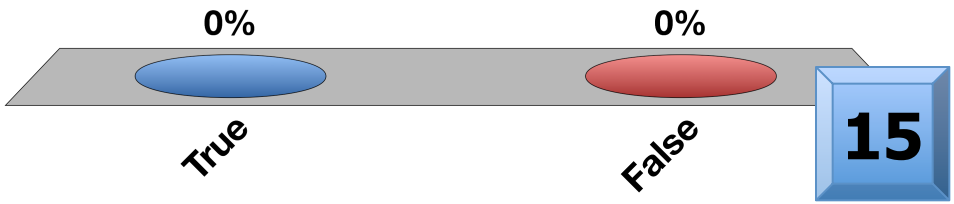


Glucose Uptake into Adipose/Muscle is Via Active Transport

A. True

B. False

Response Counter



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A. Elevated insulin secretion
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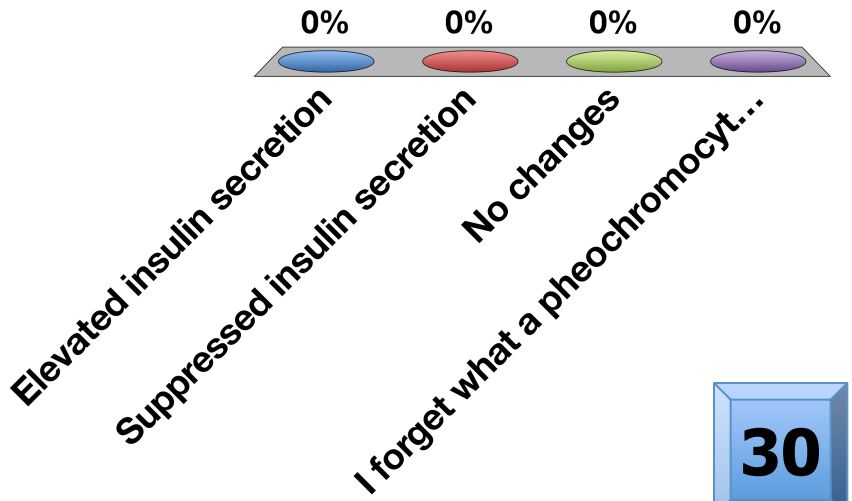
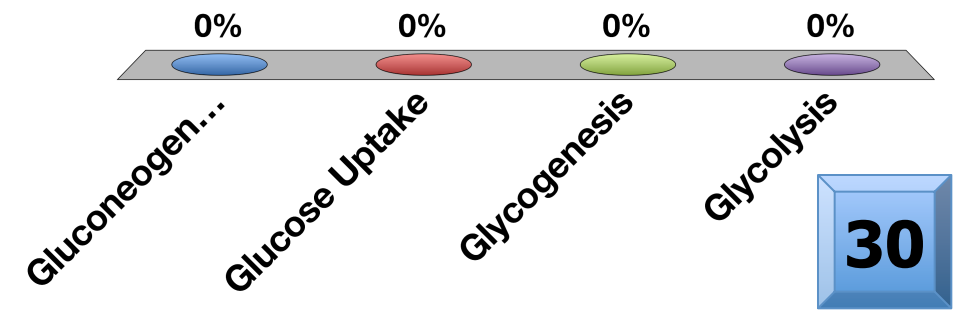


What does insulin **NOT** activate?

A. Gluconeogenesis
B. Glucose Uptake
C. Glycogenesis
D. Glycolysis



Response Counter

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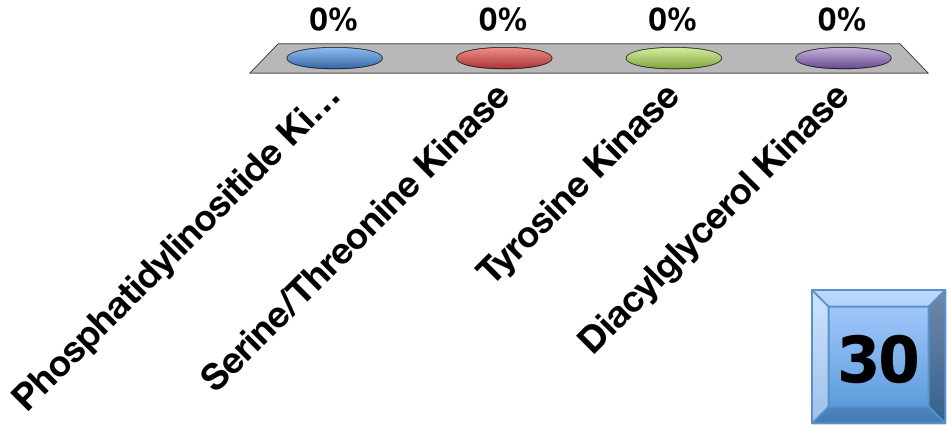
The Insulin Receptor is a…

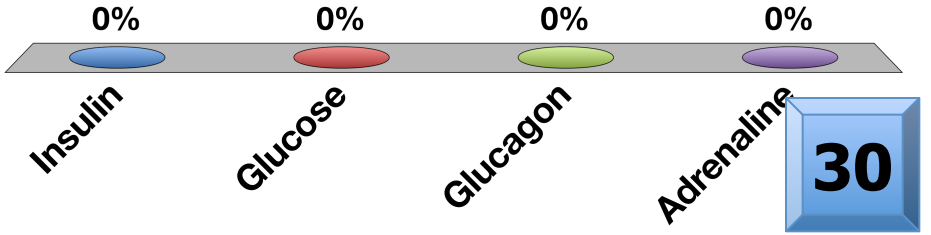
A. Phosphatidylinositide Kinase
B. Serine/Threonine Kinase
C. Tyrosine Kinase
D. Diacylglycerol Kinase



A patient is rushed to the hospital with low blood glucose, what would be a ***bad*** treatment?

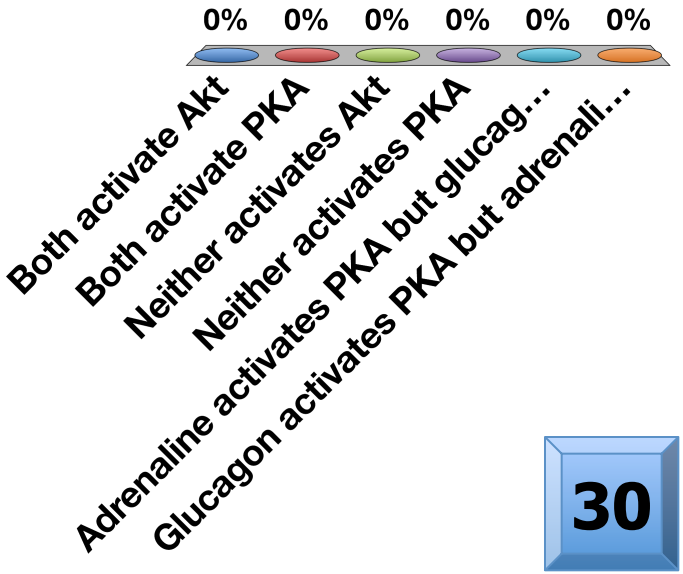
A. Insulin
B. Glucose
C. Glucagon
D. Adrenaline

Response Counter



Adrenaline and Glucagon…

A. Both activate Akt
B. Both activate PKA
C. Neither activates Akt
D. Neither activates PKA
E. Adrenaline activates PKA but glucagon activates Akt
F. Glucagon activates PKA but adrenaline activates Akt



Response Counter

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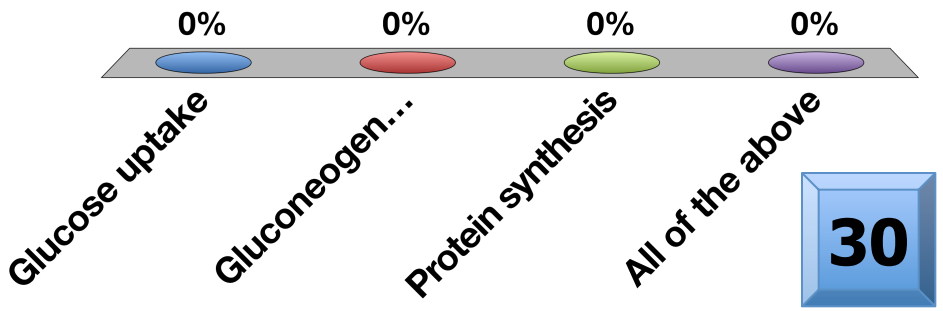
Which process does cortisol accelerate

A. Glucose uptake in muscle
B. Gluconeogenesis
C. Protein synthesis
D. All of the above

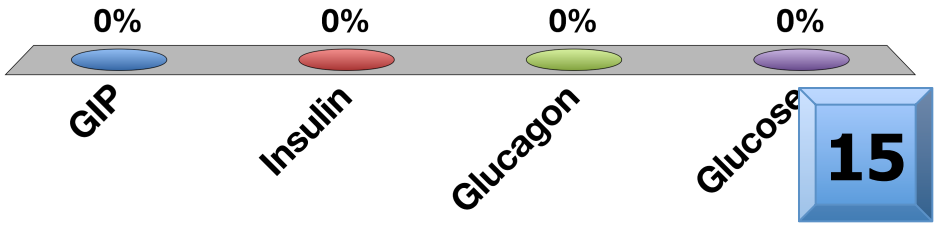
Response Counter



During Fasting Which Is Elevated

A. GIP
B. Insulin
C. Glucagon
D. Glucose

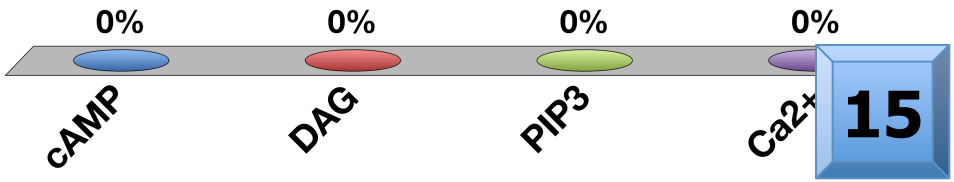
Response Counter



Which is the main second messenger in glucagon signaling

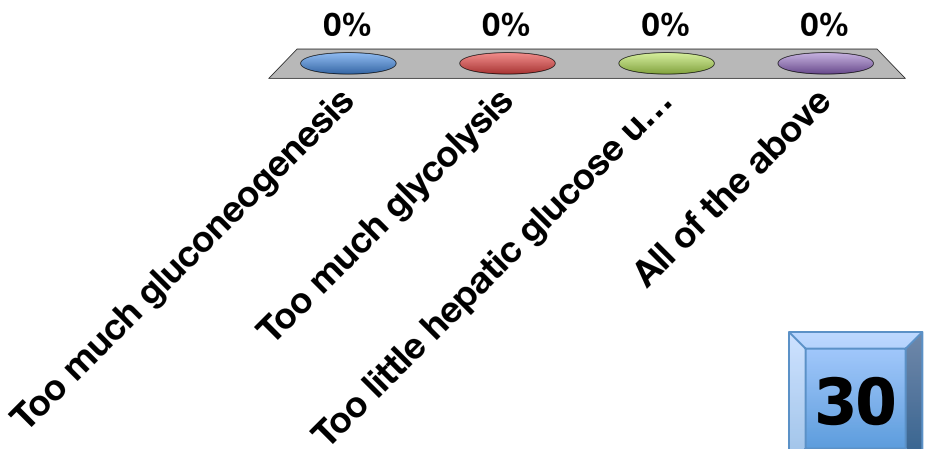
A. cAMP
B. DAG
C. PIP_3
D. Ca^{2+}

Response Counter



Why would liver insulin resistance cause hyperglycemia

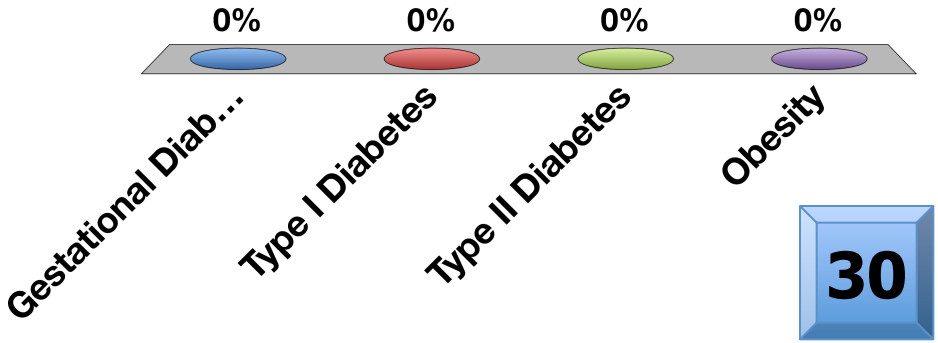
A. Too much gluconeogenesis
B. Too much glycolysis
C. Too little hepatic glucose uptake
D. All of the above



Response Counter

A lack of insulin production causes

A. Gestational Diabetes
B. Type I Diabetes
C. Type II Diabetes
D. Obesity



Response Counter

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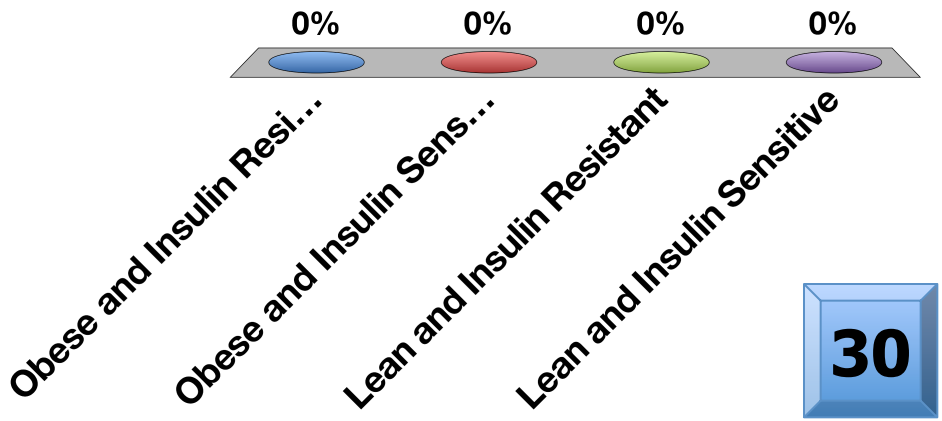
Type II Diabetics Tend To Be…

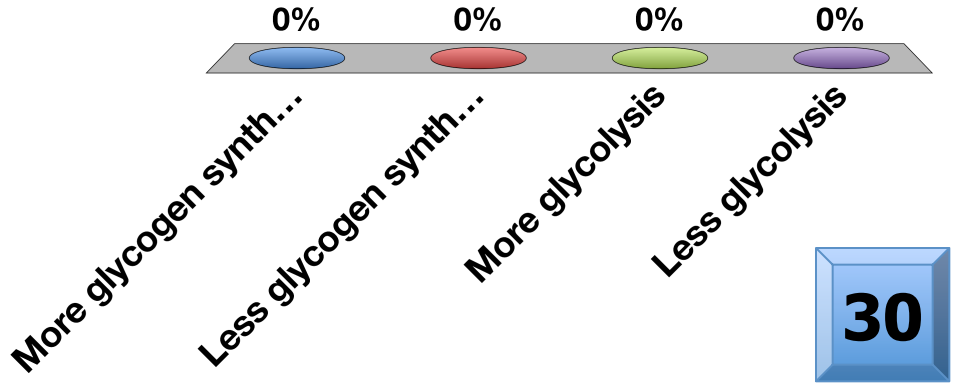
A. Obese and Insulin Resistant
B. Obese and Insulin Sensitive
C. Lean and Insulin Resistant
D. Lean and Insulin Sensitive

Response Counter



What is the effect of dephosphorylating glycogen synthase and glycogen phosphorylase?

A. More glycogen synthesis
B. Less glycogen synthesis
C. More glycolysis
D. Less glycolysis



Response Counter

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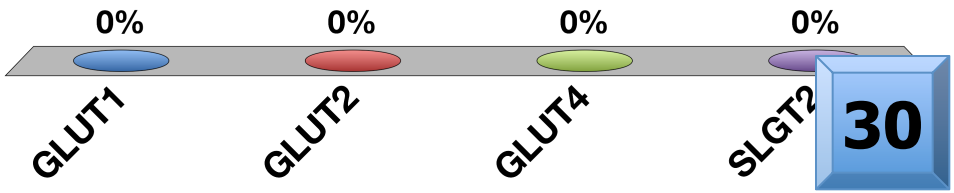
What is the main insulin responsive glucose transporter

A. GLUT1
B. GLUT2
C. GLUT4
D. SLGT2

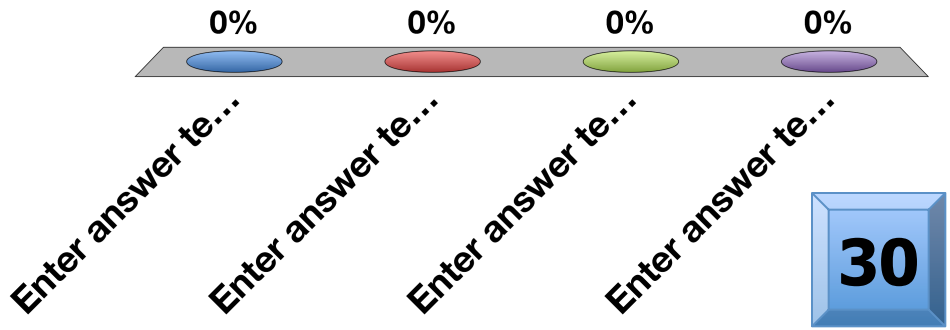
Response Counter



Brain insulin resistance would lead to

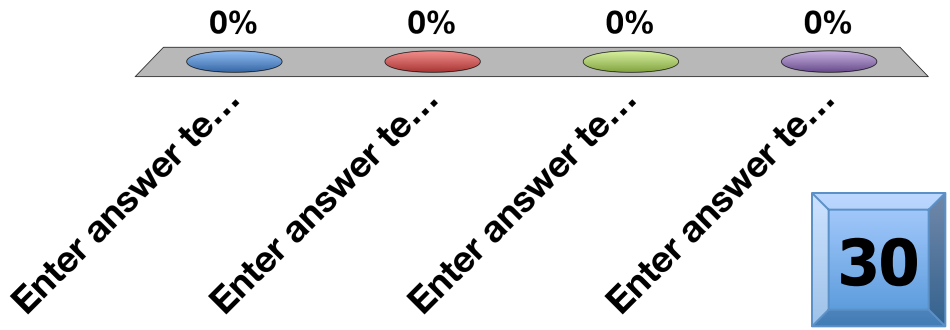
A. Increased appetite
B. Decreased appetite
C. Hypoglycemia

Response Counter



Why would Lep or LepR mutant mice become obese

A. Elevated insulin sensitivity
B. Elevated appetite because too much leptin signaling
C. Elevated appetite because no leptin signaling
D. Reduced appetite because not enough leptin signaling
E. Reduced appetite because no leptin signaling

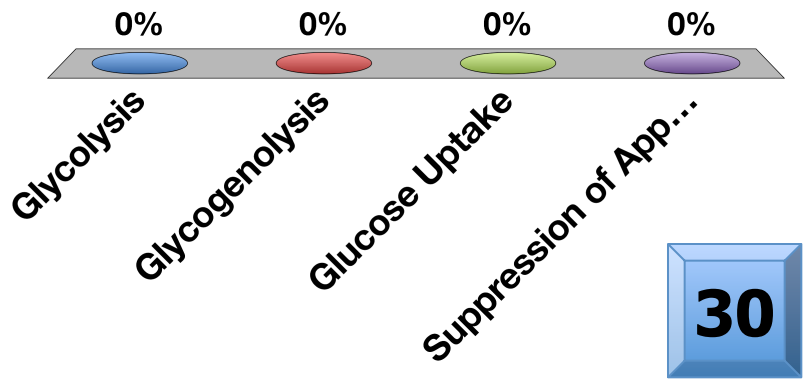


Response Counter

30

Which of the following will increase plasma glucose

A. Glycolysis
B. Glycogenolysis
C. Glucose Uptake
D. Suppression of Appetite



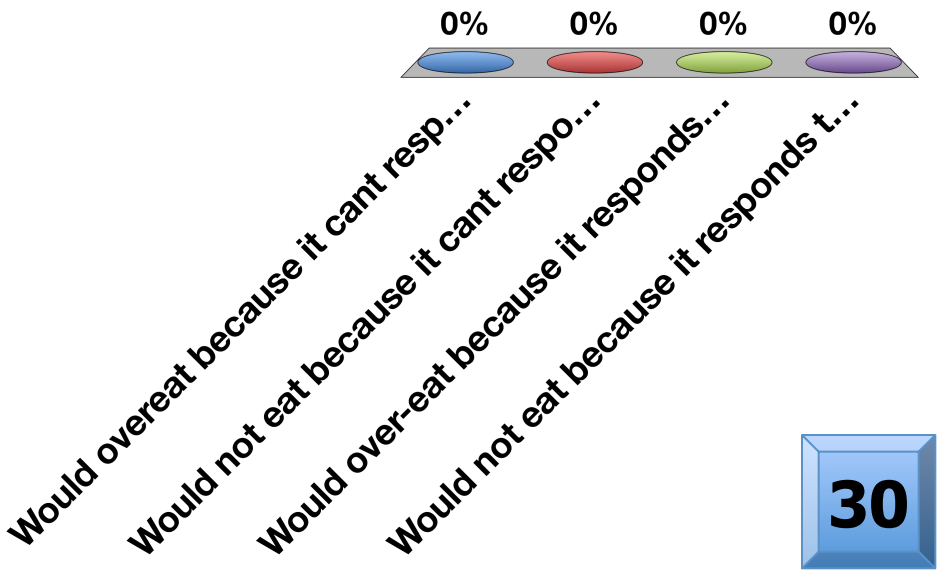
Response Counter

30

A mouse with no Leptin Receptor

A. Would overeat because it cant respond to leptin
B. Would not eat because it cant respond to leptin
C. Would over-eat because it responds too strongly to leptin
D. Would not eat because it responds too strongly to leptin

Response Counter



Which hormone stimulates appetite

A. Insulin
B. Leptin
C. Ghrelin
D. PYY

Response Counter