

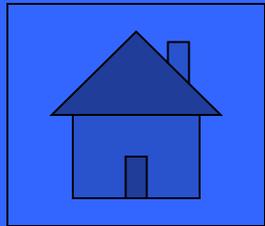
The master gland	Sugar, Salt, and Sex	The bow tie gland	The Cream Rises to the Top	Bones and what they're made of
<u>100 pt</u>	<u>100 pt</u>	<u>100 pt</u>	<u>100 pt</u>	<u>100 pt</u>
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A 32 year old woman presents with oligomenorrhea and galactorrhea. Her B-HCG is negative and prolactin level is 300 ng/mL. An MRI reveals a microadenoma of the pituitary.

The patient desires fertility.

This is the first-line therapy for her disease.

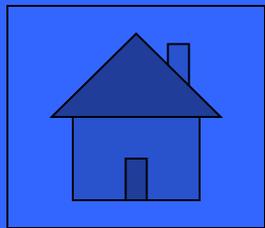
What is dopamine agonist therapy with  
bromocryptine or cabergoline?



A 50 year-old man presents with headache, and enlarging shoe size and hat size for the past year. Visual field tests reveal bitemporal hemianopsia. An MRI of the brain reveals a pituitary macroadenoma. IG-F 1 level is elevated and does not suppress with glucose.

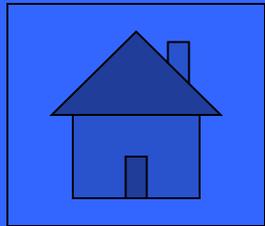
This is the first line therapy for his disease.

What is neurosurgical resection?  
(Somatostatin analogues are used after surgery  
for residual disease)



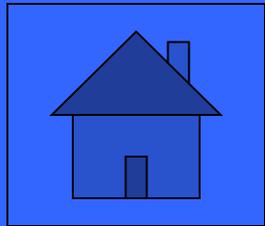
This syndrome mimicks an acute subarachnoid hemorrhage and is comprised of a combination of sudden onset of severe headache, diplopia, and acute hypopituitarism.

What is pituitary apoplexy?



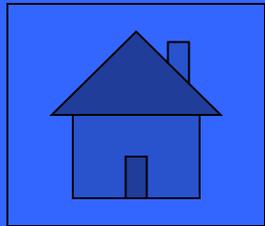
This is an autoimmune disorder that is characterized by symmetric enlargement of the sellar contents occurring **during or after pregnancy**, and it is commonly associated with ACTH deficiency. It is also seen with immune therapy for malignancies, specifically **anti-CTLA4 inhibitors**.

What is lymphocytic hypophysitis?



If the baseline serum sodium level is within the normal range in the setting of polyuria, a \_\_\_\_\_ test should be performed to differentiate diabetes insipidus from primary polydipsia.

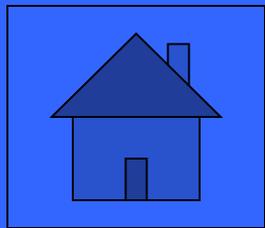
What is a water deprivation test?



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When you are suspecting a diagnosis of primary adrenal insufficiency, this is the first test to order.

What is an 8 AM serum cortisol level?  
Extra point: Above what level indicates  
that the patient is NOT adrenally  
insufficient?

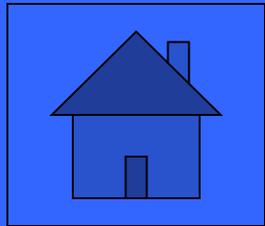


This is the most common cause of primary adrenal  
insufficiency in the United States

*and*

the most common cause of primary adrenal  
insufficiency worldwide.

What are autoimmune adrenalitis  
and tuberculosis?

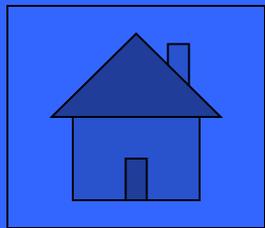


You suspect a patient of having hypercortisolism because of hypertension, hyperglycemia, and central obesity.

These are **two of the four** possible tests that can prove that your patient has an excess of cortisol.

What are:

- 1) 1 mg dexamethasone suppression test
- 2) 24 hour urine-free cortisol
- 3) Midnight salivary cortisol
- 4) Midnight serum cortisol

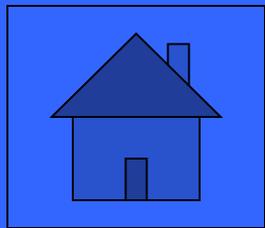


Your patient is found to have a 3 cm right adrenal mass after a CT is performed to assess for diverticulosis.

These are the two questions that you must answer in regards to the mass to determine its management.

What are:

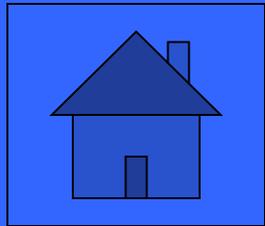
- 1) Is it malignant or likely malignant based on size, Hounsfield units, and/or contrast washout?
- 2) Is it functioning/producing excess hormones?



Adrenal insufficiency occurs in up to 33% of patients with acute liver failure, 65% of patients with chronic liver disease and sepsis, and 92% of patients who have undergone liver transplant.

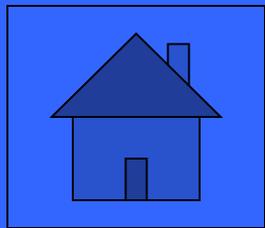
This is the presumed mechanism for “hepato-adrenal exhaustion” syndrome.

A substrate shortage to produce the hormone.  
(Decreased cholesterol synthesis)



This is the first test to order in a patient with a palpable thyroid nodule in order to determine the necessary work up.

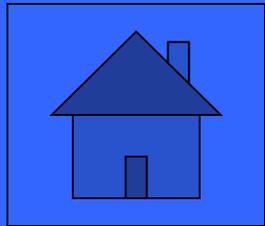
What is a TSH?



This is the next test to order in a patient who presents with tachycardia, unintentional weight loss, hyperdefecation, and sweating for the past 2 months.

The TSH is  $<0.01$  and the free T4 and free T3 are both elevated.

What is a  
radioactive iodine  
uptake  
(RAIU)?

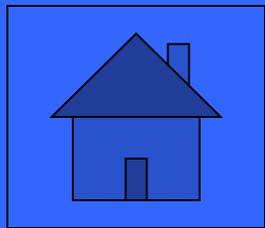


Your patient is a 42 year old woman with a history of hypothyroidism and menorrhagia with iron deficiency anemia who is seen in follow up for these issues. She is complaining of fatigue and lethargy and her TSH is 8.3 uU/mL.

Before increasing the dose of her synthroid, this is what you ask her.

What is:

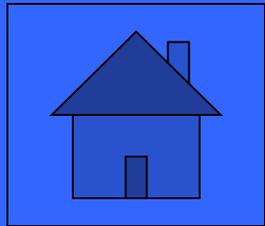
- 1) Are you taking your medicine?
- 2) Are you taking your medicine on an empty stomach or with iron-supplementation, calcium, or PPI?



Normally, a TSH is used to screen patients for any underlying thyroid disease. *This* is a reason why a TSH alone may not be an accurate reflection of a patient's thyroid hormone status.

What is:

- 1) The patient has a central (pituitary) cause of thyroid disease
- 2) Non-thyroidal illness (sick euthyroid)
- 3) Resistance to thyroid hormone (abnormal thyroid hormone receptor at the beta subunit)?

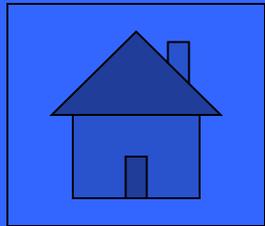


You are seeing a patient with a history of thyroidectomy due to papillary thyroid cancer. She has noticed a new mass in her neck and is concerned about recurrence.

These are the two labs that you order to assess her likelihood of recurrence.

What are:

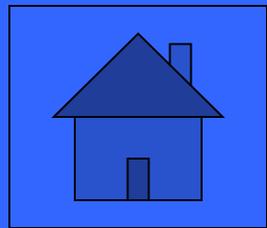
1. Serum thyroglobulin and
2. Serum anti-thyroglobulin antibodies?



These are 3 of the top 5 risk factors for CAD according to the **INTERHEART study** which found the 9 risk factors that account for 90% of CAD risk.

What are:

1. Hyperlipidemia (ApoB/ApoA1) (3.25)
2. Current smoking (2.87)
3. Psychosocial (2.67)
4. Diabetes (2.37)
5. Hypertension (1.91)
6. Abdominal obesity (1.62)
7. Daily fruit and vegies (0.70)
8. Exercise (0.86)
9. Alcohol intake (0.91)?



These are the 2 recommendations for **lipid screening** according to the ACC/AHA 2013 guidelines.

What is:

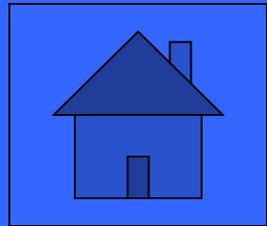
1. Check total cholesterol and HDL at **age 20** and q 4-6 years thereafter
2. Assess 10 year ASCVD risk by pooled cohort equation **age 40** -79 q 4 -6 years?



These are 6 out of the 7  
variables that contribute to  
CAD/stroke risk in the  
pooled cohort equation.

What are:

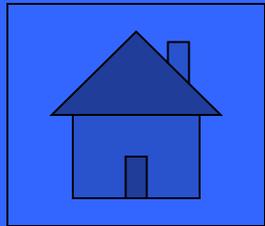
1. Gender
2. Age
3. Race
4. Total cholesterol/ HDL
5. Blood pressure/tx for HTN
6. DM
7. Smoker?



These are two reasons why a TARGET LDL goal is NOT recommended for lipid treatment according to the ACC/AHA 2013 guidelines.

What is because

1. The goal of treatment is to **treat to the level of risk** rather than an absolute number and
2. Too many non-statin drugs were being used?

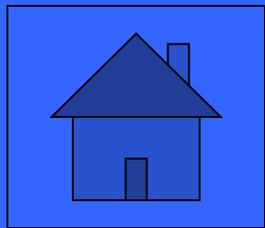


A 32 year-old woman is diagnosed with hypothyroidism and is started on replacement therapy. Her TSH normalizes in 6 weeks and she tells you that she has just found out that she is pregnant.

This is what you tell her regarding her thyroid replacement dose during her pregnancy.

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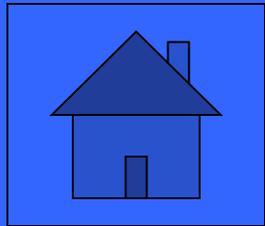
Her synthroid dose should be increased by 30-50% now (at the beginning of pregnancy) so that her child will be able to go to Harvard.



A patient you are taking care of in clinic is found to have a calcium of 10.8 mg/dL on routine labs. Her albumin is normal and she is asymptomatic.

This is the next test you order to evaluate her hypercalcemia.

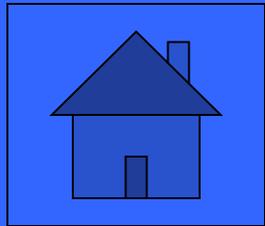
What is an intact PTH level?



A 65 year old woman is evaluated in your clinic as a new patient. You order a DEXA scan as recommended by the USPSTF. Her bone mineral density at the femoral neck T score is -2.0.

This is the next step in the evaluation of her risk for fracture.

What is use the FRAX tool to calculate her life-time risk of hip fracture and her 10-year risk of fracture?

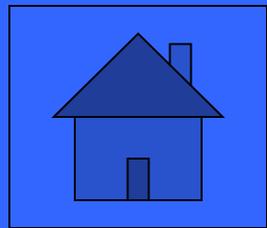


This is the difference between the T-score  
and the Z-score when interpreting a  
DEXA scan.

What is:

A **T-score** is the number of standard deviations difference between the patient and a healthy, young, same-sexed person **at peak BMD**.

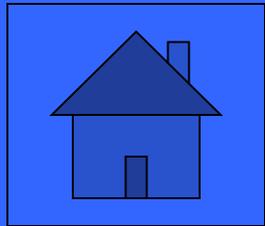
A **Z-score** is the number of standard deviations difference between the patient and the **mean BMD of a person of the same age and sex?**



Your 30 year old female patient has a fragility fracture of the wrist. A DEXA scan reports her to have low bone mineral density. Labs reveal mild hypocalcemia and hypophosphatemia with a normal magnesium and normal renal function.

This is the next step in the evaluation of your patient.

What is a 25-OH vitamin D level  
and intact PTH level?



Because of the possible complications of bisphosphonate therapy, many experts recommend that a “drug holiday” occur after 5 years of treatment for a minimum of 2 years.

This drug can be used in patients with severe osteoporosis or ongoing fractures during the drug holiday.

What is teraperatide?

