View the Film on “Pituitary Tumor Surgery” and answer the questions on your laboratory worksheet.

Anatlab
- On campus students: Double-click on the Anatlab icon
- Online/Ind Study Students: Insert the Anatlab CD
- Click on the Abdomen and Thorax Button
- Click on the Endocrine System button
- Answer the questions, on the computer, as they appear in the material.
- Answer the 10 quiz questions, on the computer, at the end of the material.

Webpath
- Open Internet Explorer
- Go to the BioMed Core Lab Page*
- Click on the “WebPath” link
- Click on the “Systemic System Pathology” link
- Click on the “Endocrine Pathology” link
- As you view the following images, answer the questions on your worksheet.
  - Image 1 - Thyroid, normal in situ, gross
  - Image 3 - Thyroid, normal, medium power microscopic
  - Image 14 - Thyroid, nodular goiter, gross
  - Image 31 - Pituitary, normal gross
  - Image 43 - Parathyroid gland, normal microscopic
  - Image 50 - Adrenal Gland in situ, gross
  - Image 51 - Adrenal glands, normal, gross
  - Image 52 - Adrenal glands, normal cross-section, gross
  - Image 60 - Adrenal gland, metastatic Carcinoma, gross [CT]
  - Image 61 - Adrenal gland, caseating granulomatous inflammation, gross
  - Image 74 - Adrenal gland, pheochromocytoma, gross [CT]
  - Image 81 - Islet of Langerhans, normal, microscopic
- Exit Internet Explorer
• Go through the Interactive Physiology activities by clicking on the Interactive Physiology Link.
  o Insert the Username and Password:
    ▪ Username: biomedcorelab
    ▪ Password: waldo
  o Click login
  o Click start
  o Click on The Endocrine System link
    ▪ Do all the topics under the Endocrine System
    ▪ Take the quiz at the end of each section.
Movie: Pituitary Tumor Surgery

1. Morton Hirschberg is being treated for what condition?

2. Acromegaly is a disease caused by what?

3. The brain communicates with the pituitary gland through ____________________.

4. The pituitary gland is considered the __________ __________

5. The pituitary tumor is causing the pituitary gland to produce too much __________ __________ hormone.

6. People with acromegaly usually commonly have inflammation of their joints. This is called ________________.

7. Years ago, how were pituitary tumors removed? How are they removed today?

8. Morton mentions that the ____________ growth cannot be reversed after surgery. However, ____________ __________ growth can be reversed.

9. The front portion of the nasal septum is made of cartilage. What is the back portion of the nasal septum made of?

10. Name the keel-like bone that is used to determine the midline of the skull.

11. The surgeons are trying to reach what sinus?

12. Lateral to the pituitary gland are the ____________ arteries.

13. Name the layer of the meninges surgeons have to go through to get to the pituitary gland.

14. Can tumor cells invade the dura mater?

15. After the tumor is removed what is used to stop the bleeding and fill the tumor cavity?
16. After the surgeon is done, the nose will be packed with what type of gauze?

17. The doctor mentions a Bible person that may have had acromegaly, what is his name?

Answer the following questions as you view WebPath.

1. (Images 1&3) Which is true of a normal thyroid gland?
   a. it appears light yellow in color
   b. it cannot easily be palpated on physical exam
   c. it is immediately posterior to the trachea
   d. its mass is 1 to 3 grams

2. (Image 14) If a patient has nodular goiter of the thyroid do they have normal thyroid function? Explain.

3. (Image 31) The larger portion of the pituitary is the
   a. hypophysis
   b. neurohypophysis
   c. sella turcica
   d. adenohypophysis

4. (Image 52) In a sectional view of the adrenal glands, the outer cortex appears ______________ and the medulla is ________________.

5. (Image 54) When adrenal glands exhibit bilateral cortical hyperplasia they suffer mainly from what?

6. (Image 60) If a patient has metastatic carcinoma of the adrenal what will the glands look like?

7. (Image 61) What does the term “caseating” as in caseating granuloma of the adrenal gland refer to?

8. (Image 74) Where is a pheochromocytoma tumor formed?

9. (Image 81) The islet of Langerhans contains alpha cells secreting __________ and beta cells secreting ___________.
Module 10 Graphics

Fig 18.1
18.5
18.7
18.9
18.10
18.17

ANSWERS

1. ACROMEGALY
2. PITUITARY TUMOR
3. INFUNDIBULUM
4. MASTER GLAND
5. HUMAN GROWTH
6. ARTHRITIS
7. TOP OF THE HEAD; THROUGH AN INCISION THROUGH THE NOSE AND UPPER LIP
8. BONE; SOFT TISSUE
9. BONE
10. VOMER
11. SPHENOID SINUS
12. CAROTID
13. DURA MATER
14. YES, IT IS BELIEVED THIS CAN CONTRIBUTE TO THE RE-GROWTH OF PITUITARY TUMORS
15. GEL FOAM
16. VASELINE COATED GAUZE
17. GOLIATH

WEBPATH

1. B
2. YES THE IMAGE COMES FROM A EUTHYROID PATIENT
3. D
4. YELLOW; RED/GRAY
5. ADRENAL ENLARGEMENT
6. LARGE TAN-WHITE; METASTASES
7. CASEATING; YELLOW CHEESE-LIKE
8. ADRENAL MEDULLA
9. GLUCAGON; INSULIN