

Factors that Disrupt Cell Communication

Cell Communication Student Worksheet

Name _____ Date _____

Neural Communication

Neuroscience for Kids
<http://www.bonus.com/contour/neuroscienceforkids/http@@/faculty.washington.edu/chudler/introb.html>
Select "Drug Effects" → "Heroin"

1. What is the chemical name for heroin?
2. From which plant is heroin made? In what parts of the world is this plant found?
3. Heroin is a member of what general class of drugs?
4. The receptors for heroin and other members of this class of drugs are located on neurons of parts of the brain. What aspects of human life do these parts of the brain control?
5. What are endorphins? When are they released?

Hormonal Communication

Endocrine Disruptors http://whyfiles.org/045env_hormone/index.html

Select "Wildlife Woes."

Follow links at the bottom of each page through the DDT story on the fifth page.

1. How have animals been affected by endocrine disruptor chemicals spilled by humans?
2. Describe the four types of endocrine disruptors with molecular structures similar to that of hormones.
3. Why are small doses of endocrine disruptors so dangerous to animals?
4. Describe the three ways endocrine disruptors can interfere with normal hormonal signaling.
5. What is DDT?

6. How did DDT affect hormonal signaling in eagles and peregrine falcons?

7. How has the eagle population fared since DDT use was banned?