

Name: _____
Hour: _____ Date: _____

Chemistry: *Aspirin*

1. What does the American Indian shaman collect in the forest?
2. What substance does the doctor of the Grand Duchess prescribe as a remedy for her arthritis?
3. To what group of chemicals do willow tree bark, oil of wintergreen, and aspirin belong?
4. What chemical does each of these contain?
willow trees →
oil of wintergreen →
aspirin →
5. What method of investigation was used in the herbal medicine of primitive cultures?
6. When did medicinal plants begin to be scientifically studied?
7. What chemical appears in several different plants and is able to relieve fever and pain?
8. Why did some patients refuse to take salicylic acid?
9. From what is the name *aspirin* derived?
10. How much aspirin do Americans consume?
11. What two chemicals will react to produce acetylsalicylic acid (aspirin)?
12. What effects does aspirin have on the body?
13. What bodily functions do prostaglandins regulate?
14. What effect does an aspirin overdose have on blood pH?
15. What organs attempt to remove the excess acid from the blood?
16. What is the term for the acid/base imbalance in which the blood pH is too low?
17. List four symptoms of salicylate poisoning, such as you can get from an aspirin overdose or by ingesting methyl salicylate.

18. What is the most common side effect of aspirin?
19. List the positives and negatives of buffered aspirin.
20. What is special about the coating on tablets of enteric aspirin?
21. Why was enteric aspirin introduced?
22. What effects does the non-aspirin pain reliever acetaminophen have on the body?
23. What is the brand name of acetaminophen?
24. Another non-aspirin pain killer, ibuprofen, is sold under the names _____ or _____.
25. Although aspirin reduces most forms of inflammation, it is not effective against what kind of inflammation?
26. How is Reye's syndrome connected with aspirin use?
27. What age group is most susceptible to Reye's syndrome?
28. List seven symptoms of Reye's syndrome.
29. What effect does Reye's syndrome have on the...
...liver?
...brain?
30. How does aspirin interact with a viral infection to produce Reye's syndrome?
31. Some medicines DO contain aspirin, even though they are not commonly believed to. List three of them.

APPLICATION QUESTION:

Which of these teenagers should be cautious about taking aspirin: a boy with sore muscles, or a girl with the flu?
Use complete sentences, and explain your answer.