

## Pharmacological Revolutions

- Vaccines 1796 small pox - Edward Jenner

- Anesthetics

Hypodermic Syringe - 1853

Civil War



- Antibiotics

Sulpha Drugs - 1920s

Penicillin - 1940

- Tranquilizers for mental illness

1955-1975 mental hospital population decreased by 75%

- Oral Contraceptives - 1963 in USA.

At several points in history the development of a drug has changed the way we live, work and think. The following list presents 5 such occurrences.

**VACCINES** - Prior to Edward Jenner's discovery of the cow pox - milkmaid - small pox linkage humankind could do nothing but look on in despair as the various killer infectious diseases ravaged society. With the work of people like Jenner, Pasture, Koch, and Salk we now stop at least 24 diseases with the immunization process.

**ANESTHESIA** - While surgery was done before anesthesia was available, it was limited to procedures that could be performed quickly and was usually reserved for the very ill. The pain and shock caused much suffering even to the survivors. These drugs enabled physicians to perform more complex and time consuming procedures. Heart transplants and intricate cancer dissections being ultimate examples. Anesthesia has enabled humans to look at life in less painful terms.

**ANTIBIOTICS** - Bacterial diseases were once the scourge of human kind. The first drug that killed bacteria living in the human body came along in the 1920's (sulfa) with the ultimate (penicillin) being introduced in the 1940's. Strep throat and appendicitis are no longer death sentences. People used to fear infection. Quarantine signs and homes off in the mountains for TB patients are now considered a historical oddity.

**TRANQUILIZERS** - The introduction of major tranquilizing and anti-depressant drugs was one of the causes of a 65% decrease in the mental hospital population from 1955-1975. These drugs enable the heretofore unreachable patient to be calmed to a point where therapy can be helpful. Prior to this the mentally ill were given purges, enemas, shocks, and lobotomies in an effort to control their bizarre behavior.

**BIRTH CONTROL PILLS** - The first drug use for social convenience as opposed to disease cure or prevention. Hormonal contraception enable women to control their fertility in a way never before possible and enabled many of the features of the woman's movement to move forward.

Which one of these has been most important? Least Important?  
Rank order them.  
Discuss reasons for your choice.

What will be the next pharmacological discovery to change or way of life?