

Substances Used In Medicine

PREHISTORIC TIMES

Obviously we do not know what substances prehistoric man used. We can look at those used by other primitive societies e.g. the Aborigines. They covered open cuts with pads of mud or animal fat. Stomach disorders could be treated by chewing certain shoots or an orchid bulb. Broken arms could be encased in mud or clay. South American Indians chewed the coca plant to remove fatigue and pain (cocaine comes from this)

THE EGYPTIANS

The Egyptians developed a system of writing and this meant that knowledge was not lost and a store of knowledge was built up. They found out which substances were effective. Many of their herbs were used until quite recently. Radishes, garlic and onions, which formed a large part of the diet of the pyramid builders, contain chemicals effective against dysentery. Chemists have found germ-killing substances in some of the popular ingredients of Egyptian medicine, such as, myrrh, yeast, mud, and animal liver.

THE GREEKS AND ROMANS

The Greeks were great sailors and learned a great deal from the Egyptians about the use of herbs. Hippocrates developed the 4-humour theory and herbs could be used to purge the body of excess liquids. The Romans developed the idea still further and used opposites e.g. pepper to treat diseases caused by the cold. Some popular treatments did work e.g. wine and vinegar on wounds (mild antiseptics) and e.g. yolks and burned eggshells for dysentery.

THE MIDDLE AGES

Belief in the 4-humour theory continued and plants used in Ancient Times continued to be used. Many of the substances used in "cures" would remind us of witches' spells e.g. bat's blood, dried snake, toads etc.

1500 - 1800 RENAISSANCE TIMES

Galen's belief in the 4-humour theory and the use of opposites continued for much of this period. Ambrose Pare did find that cooling lotions were better for wounds than boiling oil. Physicians and apothecaries prescribed medicines and potions that had been used in Ancient Times. New substances did appear after the discovery of the Americas. Tobacco was to be of very little use but quinine (made from tree bark) could ease the symptoms of malaria.

In 1653 Nicholas Culpeper wrote a book called the "Complete Herbal" which showed a belief that the position of the planets could cause diseases and herbs opposite to these planets could cure them. The treatment of Charles II in his fatal illness (1685) shows that a belief in the 4-humour theory continued. He was bled and given substances to make him sick and empty his bowels. Blistering agents were put on his head

1800 – 1900

Towards the end of this period Pasteur found ways of preventing disease by vaccination (weakened or dead germs). Lister used carbolic acid as an antiseptic to kill germs on the skin. Ordinary doctors could do little to cure their patients. Most medicines contained ineffective and usually harmless mixtures of herbal extracts. Medicines were expected to taste

unpleasant and have a strong smell. Nitrous oxide, ether and chloroform were used to control pain.

CHANGES IN THE 20TH CENTURY

Drugs were developed which could kill germs inside the body e.g. Salvarsan and penicillin. Blood transfusions and organ transplants became possible. Safer anaesthetics and painkillers were developed. Mood-changing drugs have been developed which can calm people down or give them more energy. Hormones have been isolated and made in the laboratory. This has made possible the treatment of diabetes and the contraceptive pill for women. New vaccine have been developed e.g. polio vaccine on a sugar lump. Vitamins can be added to food.

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