

Dried Fruits Prevent Scurvy

Physiology

Dried fruits which have been treated with sulphur dioxide gas maintain their vitamin C content, and therefore their ability to prevent scurvy, according to a study to be reported in the *Journal of Biological Chemistry*, by Agnes Fay Morgan and Anna Field of the University of California, Berkeley. The same fruits dried and not subjected to the sulphur dioxide treatment lose their vitamin value.

Fruits and vegetables are known to contain vitamin C, and it has been considered that these foods must be fresh when used to prevent scurvy. Since the danger of scurvy is greatest under circumstances where an adequate supply of fresh vegetables and fruits is most difficult to obtain, much interest has been shown in the effect of methods of preservation upon the vitamin C content of foods. Numerous studies have been made upon citrus fruit juices, cabbage, milk, potatoes and tomatoes.

Apparently the more acid foods, such as citrus fruits and tomatoes, are

not only more richly endowed with vitamin C, but are also better able to resist destruction of this vitamin by drying or processing.

Because of the inconsistency in previously reported work by other experimenters, and because of the economic importance of the commonly used dried fruits, the experimenters used peaches as the basis for their work.

Fresh, completely ripe peaches were used. They were picked, pitted, and ground in a food chopper. Some of the batch was sun-dried and some dried in dehydrators. Part of the dried batch was submitted to the action of sulphur dioxide over night. Then feeding experiments were made, using guinea pigs. It was found that the sulphured fruit retains the full vitamin C content of the fresh fruit, but the unsulphured dry fruit retained no detectable amount of this vitamin. The sulphured, dried peaches were found to rank with orange juice, raw tomatoes, and other highly potent antiscorbatic foods.

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Malaria Treatment

Medicine

The new malaria treatment of general paralysis has been successful in arresting the disease in 38 out of 100 patients so treated, Dr. Paul O'Leary of Rochester, Minn., reported to the American Medical Association. Observation of the group of 100 patients extended over five years. The 38 patients in whom the disease is arrested have been restored to economic efficiency to the extent of supporting themselves and their families.

The outcome of general paralysis or paresis, the end-results of syphilis, has heretofore invariably been fatal, death coming after a long period of both mental and physical disability and suffering. The important feature of the results reported by Dr. O'Leary is that regardless of the prolongation of life, the 38 patients in whom the disease is arrested are able to resume their normal activities, instead of languishing in some hospital or institution, a continual and increasing burden to themselves and their families.

Besides the 38 arrested cases, 31 patients now show improvement. Seventeen have not benefited and 14 are dead. Of these 14, only 5 died of malaria, the other deaths being due to the paresis, to accident, suicide and various diseases.

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Glands and Reproduction

Medicine

The endocrine glands of the body have almost all some part to play in the process of reproduction, it appears from studies made by Dr. Oscar Riddle of the Carnegie Institution.

"It appears that nearly all of the internal secretions are intimately concerned in one or another special aspect of reproduction," stated Dr. Riddle. "The facts now known indicate that the essential aspects of the mechanism of reproduction are not under the control of the nerves."

Dr. Riddle and his associates have found that certain seasonal changes in size and functional activity of some glands correspond with the period of greatest activity in the reproductive organs. Dr. Riddle has concluded from his studies that true hormones are meant primarily to regulate the activities and coordinations which are part of certain essential rhythms of the body, among them the species-preserving rhythms of reproduction.

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Mental Hygiene Proves its Value

Medicine

Mental hygiene is proving its worth in many fields, among them education, jurisprudence, and philanthropy. Members of the American Medical Association attending a symposium on the subject heard that it can prevent the development of mental defectives and diminish the number of maladapted children, and that psychiatry, of which mental hygiene is a branch, is becoming increasingly useful in the handling of criminals.

Mental hygiene is concerned with the prevention of mental deficiency and insanity. It is a sort of social prophylaxis, explained Dr. Ira Wile of New York City. It is of greatest usefulness in childhood, while adjustments and adaptations of personality are still going on.

Emotional maladjustments, sex difficulties, actual mental and nervous illness and various types of disciplinary problems are the chief difficulties of college students that are being satisfactorily dealt with by mental programs and psychiatric departments in the various schools and colleges, Dr. Winifred Richmond of Washington, D. C., said. Dartmouth, Vassar and California were among the pioneers in this movement. During the five years since the work began at Vassar

185 girls and 6 teachers have been referred to the psychiatrist. More than 20 schools and colleges were represented at a conference on mental hygiene in schools and colleges held in Boston recently.

While psychiatry in criminal proceedings has gotten a bad name for itself, the system now in use in Massachusetts has proved the real worth of this science when properly applied in dealing with criminals. Dr. Winfred Overholser of the Massachusetts Department of Mental Diseases explained that in his state all persons indicted for capital offenses or bound over for a felony, having been previously convicted of a felony or indicted for any other offense more than once, are examined in the state department of mental diseases. The examination is entirely routine. As a result no defendant is put on trial who is mentally unfit and the "battle of experts" which has disgusted and disturbed the public elsewhere has practically disappeared in the state.

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Among the crystals in the Field Museum collection is a perfectly formed prism of blue beryl weighing 26 pounds.