

## **Mushrooms and Man in Medicine, Myth, and Religion**

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Mushrooms have played an important role in human history: as food, as poison, as medicine, and in folklore, legends, and religion. All of these areas are intimately interrelated.

After a short introduction on the nature of mushrooms or "Toadstools," representing fascinating organisms between the kingdom of plants and animals, a historical and medical review is given supplemented by pictures from old and new sources, starting with the earliest sources where mushrooms have been mentioned.

Whenever possible, the natural pictures of mushrooms are followed by anecdotes on their role as food or poison, in medicine, folklore, and religion. This starts with mushrooms in the past, goes on to the present, and leads to their possible significance in the future.

In early history, until medieval times, mushrooms—beside being used as food—were used in medicine primarily as a fresh or dried "drug," as is shown in the famous herbals of the "fathers of botany," such as Turner or Gerard in England, where mushrooms are described, pic-

tured, and their uses in medicine and folklore evaluated. In addition, mushrooms were used in these times as medicaments just on the basis of their form and color following the "doctrine of signatures."

The present significance of mushrooms and their applications in medicine are given by a number of examples, where the purified active substances, which increasingly are produced biotechnologically or even are biosynthesized, replace the former "drug." Still mushrooms are lively in folklore as "witches' eggs," "fairy rings," or in other connotations such as children's rhymes.

Finally, it will be shown that in the future mushrooms are expected to have an increasing importance, particularly in medicine and biotechnology in light of their unique biosynthetic capabilities and metabolic products. They therefore should survive also in legends, myth, and folklore, often reminding us of long bygone times.