

DIGITALIS.*

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GENTLEMEN,—The leaves of the digitalis plant contain three glucosides, each of which possesses active cardiac physiological actions. These are digitalin, digitalein and digitoxin.

In addition there is a fourth glucoside called digitonin destitute of any cardiac properties, but having an action very similar to saponin, the active principle of senega root. Digitalis leaves also contain a resin which closely resembles picrotoxin in its actions.

The active principles commonly known as Quévenne's and Nativelle's digitaline have been proved to be mixtures of the various glucosides above mentioned. None of the glucosides possess any advantage over a preparation of the leaves, and owing to the great difficulty in isolating them it is always preferable to use a tincture or infusion of the leaves.

Pharmacology.—There is no medicinal agent whose physiological actions it is more important that you should thoroughly understand than digitalis, for when used in proper cases and in proper doses it is capable of accomplishing a great deal of good. Although not, except in very exceptional cases, a curative agent† in the narrowest sense of that term, it is capable in many cases of not only giving great relief, but of prolonging life, frequently for very many months, and at times even for many years. The good that is obtained by mercury in syphilis, by salicylic acid in acute rheumatism, by quinine in malarial fevers is no more striking than the action which digitalis possesses in steady-ing and contracting an irregular and dilated heart.

Digitalis preparations have a disagreeable bitter taste, and when taken in large medicinal doses may give rise to nausea and vomiting and even to purging. The last effect, however, is very unusual.

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†In cases of acute dilatation of the heart occurring as the result of anæmia it is a directly curative agent.