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The presence of allantoin in the urine of the dog during starvation.

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The presence of allantoin in the urine, especially of carnivora, has afforded the impetus for a large number of investigations. A great deal of the interest manifested in this substance has been excited by its close chemical relationship to uric acid and the possible significance it may bear to uric acid metabolism. The consensus of opinion seems to indicate that the appearance of allantoin in the urine of the dog at least depends in large measure upon the type of proteid ingested. Thus, after feeding tissues or organs rich in nucleoproteid, or nucleoproteid itself, the quantity of allantoin eliminated is greatly increased. It is to the nuclein-containing radical of the proteid that the origin of allantoin has been ascribed. Other observations have shown that allantoin may appear in the urine under various pathological conditions involving destruction of nuclear material.

During the progress of an investigation upon intermediary metabolism it became necessary to subject the experimental animals to periods of starvation lasting from ten days to two weeks. From the urine of these dogs allantoin separated spontaneously in pure white crystals and the presence of this substance in the urine was constant. So far as I am aware, the presence of allantoin in the urine during starvation has not been recorded hitherto. This observation makes it probable that allantoin is a constant constituent of the urine of the dog.