

343 per day) no effects of the extract were noted as judged by the mortality rate, length of life after splenectomy, and total erythrocyte count. Fifty-seven per cent of the experimental animals died in a period of from 6 to 26 days after splenectomy, average 15 days; 60% of the controls died in a period of from 5 to 25 days after splenectomy, average 13 days. No significant differences were noted in the erythrocyte counts of the control and experimental animals.

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Studies on the Physiology of Pyrimidines. The Metabolism of the Pyrimidine Nucleosides.

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The results of previous work by one of us¹ indicated that the pyrimidines uracil and thymine, when fed in small amounts to dogs, are to a large extent metabolized. In the case of cytosine it was found that this substance was not utilized. It was partly excreted unchanged, partly deaminized and excreted in the form of uracil.

These experiments were undertaken to study the behavior of the pyrimidine nucleosides, uridine and cytidine. The substances were fed to dogs maintained on a nitrogen equilibrium. Our results show that these nucleosides are metabolized in the animal body, being broken down predominantly to urea. The behavior of cytosine in the nucleoside molecule is therefore in marked contrast to that of the free base, which is not utilized. Pentose determinations in the urine showed that the pentose sugar in the nucleoside molecule is practically completely burned; certainly not more than a trace is excreted in the urine.

Working with rabbits and man Wilson² previously concluded that when uracil, in the form of a nucleoside or nucleotide, is administered, only a small portion of the uracil is excreted.

¹ Cerecedo, L. R., *J. Biol. Chem.*, 1927, lxxv, 661.

² Wilson, D. W., *J. Biol. Chem.*, 1923, lvi, 215.