

**ON THE CHEMISTRY AND
THERAPEUTICS OF URIC
ACID GRAVEL AND GOUT**

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649543809

On the Chemistry and Therapeutics of Uric Acid Gravel and Gout by Sir William Roberts

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SIR WILLIAM ROBERTS

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ON THE
CHEMISTRY AND THERAPEUTICS
OF
URIC ACID GRAVEL
AND
GOUT

BEING THE CROONIAN LECTURES FOR 1882
DELIVERED BEFORE
THE ROYAL COLLEGE OF PHYSICIANS OF LONDON

WITH ADDITIONS

BY
SIR WILLIAM ROBERTS, M.D., F.R.S.



LONDON
SMITH, ELDER, & CO., 15 WATERLOO PLACE

1892

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LECTURE I

THE CHEMISTRY OF URIC ACID AND THE URATES— COMPARATIVE PHYSIOLOGY OF URIC ACID

MR. PRESIDENT AND GENTLEMEN,—The morbid phenomena associated with uric acid divide themselves naturally into those which have reference to gravel and calculus, and those which have reference to gout. In the former, uric acid is thrown down in the free state from the urine as concretions in the urinary channels; in the latter, uric acid is thrown down in a state of combination as sodium bi-urate in the interior tissues of the body. In both conditions the precipitated substance necessarily acts as a foreign body, and tends to cause inflammatory incidents and obstructions in the parts implicated. In regard to gravel and calculus, the whole of the morbid sequences are thus accounted for; no suspicion is entertained that uric acid concretions lodged in the kidneys or bladder produce any disturbances above and beyond those which are due to mechanical injury. But in regard to gout, uric acid is supposed to play a double part. It is commonly believed that, besides the irritation consequent on the precipitation of sodium bi-urate in the joints and elsewhere, uric acid floating in solution in the bodily fluids acts as a true poison; and it is assumed that a large part of the symptoms associated with the gouty state are directly due to this poisonous action. The