

**MEDICAL
LABORATORY
METHODS AND TESTS**

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649503643

Medical Laboratory Methods and Tests by Herbert French

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HERBERT FRENCH

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BY

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CHICAGO

W. T. KEENER & CO.

90 WABASH AVENUE

1904

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P R E F A C E

THIS volume has been written in response to repeated complaints that there was no *small* book dealing with the chemical and microscopical tests and investigations which are most useful to medical men. The object has been to detail the commoner methods, pointing out the conclusions which may be drawn from the various tests, but laying stress upon the fallacies to which each is liable. The book deals, not with the examination of patients, but with that of fluids or substances obtained from them, and bedside methods have been excluded. It is intended to be a small handbook for the medical laboratory.

HERBERT FRENCH.

GUY'S HOSPITAL,
March 19, 1904.



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CHAPTER I.

EXAMINATION OF THE URINE.

I. GENERAL CHARACTERISTICS OF URINE.

THE *amount* passed in twenty-four hours is, roughly, 1,500 c.c., or 50 ounces; but varies within wide limits. Free perspiration diminishes it, as in summer and after exercise; it is increased in winter and after copious drinking. As passed, it is usually quite clear. On standing, a faint cloud of 'mucus' often forms, especially in women. A dense pink precipitate of urates is common in summer urine; a white precipitate of earthy phosphates is not unusual in the 'alkaline tide' which follows a full meal. Some common pathological changes in amount are:

<i>Increase in—</i>		<i>Decrease in—</i>
Granular kidney, 80 to 100 ounces.		Fevers, such as pneumonia— <i>e.g.</i> , 25 ounces.
Diabetes mellitus, 100 to 200 ounces.		Acute nephritis— <i>e.g.</i> , 10 ounces or even none at all.
Diabetes insipidus, 100 to 300 ounces.		Heart failure— <i>e.g.</i> , 20 ounces, 10 ounces, or less.
Hysteria,	} Up to 100 ounces.	After catheterization it may be entirely suppressed.
After epileptic fit,		
After head injury,		
Recovery from anasarca,		