

# **X-RAY DOSAGE IN TREATMENT AND RADIOGRAPHY**

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649426430

X-ray dosage in treatment and radiography by William D. Witherbee

Except for use in any review, the reproduction or utilisation of this work in whole or in part in any form by any electronic, mechanical or other means, now known or hereafter invented, including xerography, photocopying and recording, or in any information storage or retrieval system, is forbidden without the permission of the publisher, Trieste Publishing Pty Ltd, PO Box 1576 Collingwood, Victoria 3066 Australia.

All rights reserved.

Edited by Trieste Publishing Pty Ltd.  
Cover @ 2017

This book is sold subject to the condition that it shall not, by way of trade or otherwise, be lent, re-sold, hired out, or otherwise circulated without the publisher's prior consent in any form or binding or cover other than that in which it is published and without a similar condition including this condition being imposed on the subsequent purchaser.

[www.triestepublishing.com](http://www.triestepublishing.com)

**WILLIAM D. WITHERBEE**

**X-RAY DOSAGE IN  
TREATMENT AND  
RADIOGRAPHY**





THE MACMILLAN COMPANY

NEW YORK • BOSTON • CHICAGO • DALLAS  
ATLANTA • SAN FRANCISCO

MACMILLAN & CO., LIMITED  
LONDON • BOMBAY • CALCUTTA  
MELBOURNE

THE MACMILLAN CO. OF CANADA, LTD.  
TORONTO

**X-RAY DOSAGE**  
IN  
**TREATMENT AND RADIOGRAPHY**

BY  
**WILLIAM D. WITHERBEE, M.D.**  
RADIOTHERAPIST PRESBYTERIAN HOSPITAL, NEW YORK;  
FORMERLY ROENTGENOLOGIST ROCKEFELLER  
INSTITUTE

AND  
**JOHN REMER, M.D.**  
RADIOTHERAPIST NEW YORK HOSPITAL, NEW YORK;  
CONSULTING RADIOTHERAPIST UNITED HOSPITAL,  
PORT CHESTER

**New York**  
**THE MACMILLAN COMPANY**

1922

*All rights reserved*

10

10

PRINTED IN THE UNITED STATES OF AMERICA

COPYRIGHT, 1922,  
By THE MACMILLAN COMPANY

—  
Set up and electrotyped. Published May, 1922.

Press of J. J. Little & Ives Co.  
New York

1  
2  
3  
4  
5  
6  
7  
8  
9  
10

4847  
W82  
1922

## PREFACE

THE method of dosage described in this book is practical and has been used by the authors in the clinics and private practice for the past four years. We regard this as safe, within certain limitations, namely, between a three- and ten-inch spark gap and between six and twenty inches' distance.

The unfiltered dosage is especially indicated in the treatment of superficial skin conditions. The filtered dosage, within the above limitations, is useful in the treatment of leukemia, Hodgkin's disease, tonsils and adenoids, toxic goitre, and tubercular glands. In the recent method of treatment of cancer, using high voltages above ten inches, we have had no experience. It is also essential to bear in mind that our figures are based solely on aluminum as a filter.

This method is *especially applicable and useful to the roentgenologist* in determining the number or amount of each exposure in radiographic work. For example, it is often necessary either to repeat the exposure in sinus cases or check up another

v

54752



man's findings. If the factors used on the first exposure are known, it is a comparatively easy matter to determine just how many more plates can be obtained without producing either a temporary or permanent alopecia. The above holds true also of radiographs of the kidney, pelvis, spine, gastro-intestinal tract, and in fact any condition where long exposures are required and the patient is being passed from one radiologist to another for diagnosis. These are the cases that are liable to receive an x-ray burn unless the amount of ray is definitely taken into consideration.

Much of the material in this book has been rewritten from articles of ours which have appeared from time to time in the following journals: American Journal of Medical Sciences, American Journal of Dermatology and Syphilis, American Journal of Roentgenology, New York Medical Journal, New York Medical Record, American Journal of Electrotherapeutics and Radiology, Journal of Experimental Medicine, Journal of the A. M. A., and The Journal of Radiology.

**X-RAY DOSAGE  
IN TREATMENT AND RADIOGRAPHY**

