

Copyright is owned by the Author of the thesis. Permission is given for a copy to be downloaded by an individual for the purpose of research and private study only. The thesis may not be reproduced elsewhere without the permission of the Author.

Studies on Carotene Metabolism

A thesis presented for the Degree of Doctor of Philosophy

University of New Zealand

November 1949

William Anderson McGillivray

MASSEY UNIVERSITY LIBRARY
1061959164

STUDIES ON CAROTENE METABOLISM

A Thesis Presented
for the
Degree of Doctor of Philosophy

University of New Zealand

November, 1949.

William Anderson McMillivray.



I N D E X

		Page
Introduction		1
Chapter I.	Estimation of Vitamin and Carotene	3
Chapter II.	The Chemical Conversion of Carotene to Vitamin A ..	41
Chapter III.	The Conversion of Carotene to Vitamin A in the animal body	52
Chapter IV.	The Stability of Carotene towards Oxidation	75
Chapter V.	Thyroid Function and Carotene Metabolism	83
Chapter VI.	Thyroprotein and the In Vitro Conversion of Carotene .	96
Chapter VII.	The Availability of Carotene from Herbage	103
Chapter VIII.	The Estimation of Carotene in Plant Material and Faeces	110
Chapter IX.	The Apparent Synthesis of Carotene in the Intestine	127
Summary		137
Acknowledgments		141
References		142
Appendix		1 - 11