



PAPERFRONTS

THE HEART



WHAT IT DOES

HOW IT CAN GO WRONG

HOW TO KEEP IT HEALTHY

Alastair Hunter M.D., F.R.C.P.

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by

ALASTAIR HUNTER, M.D., F.R.C.P.

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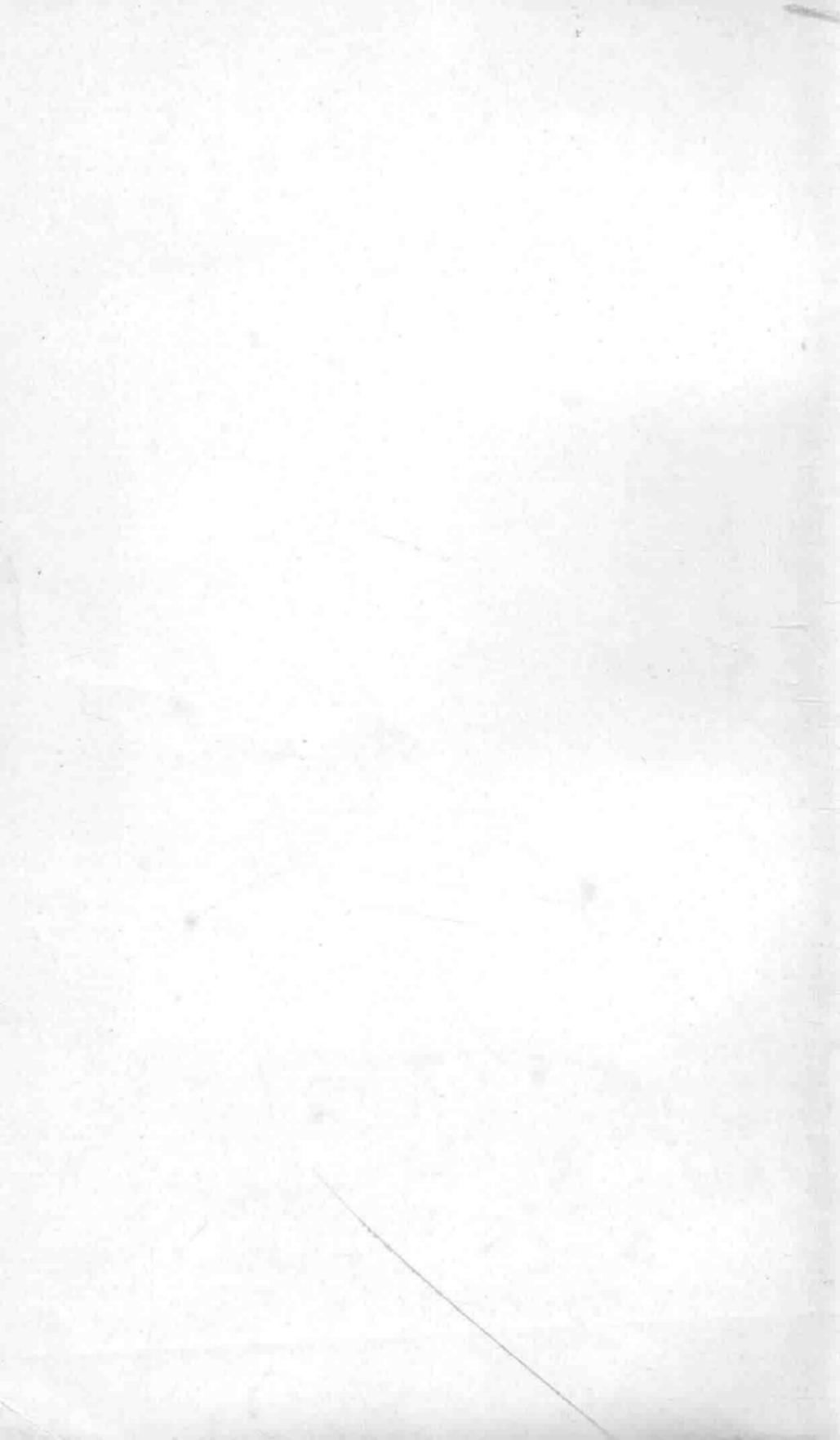
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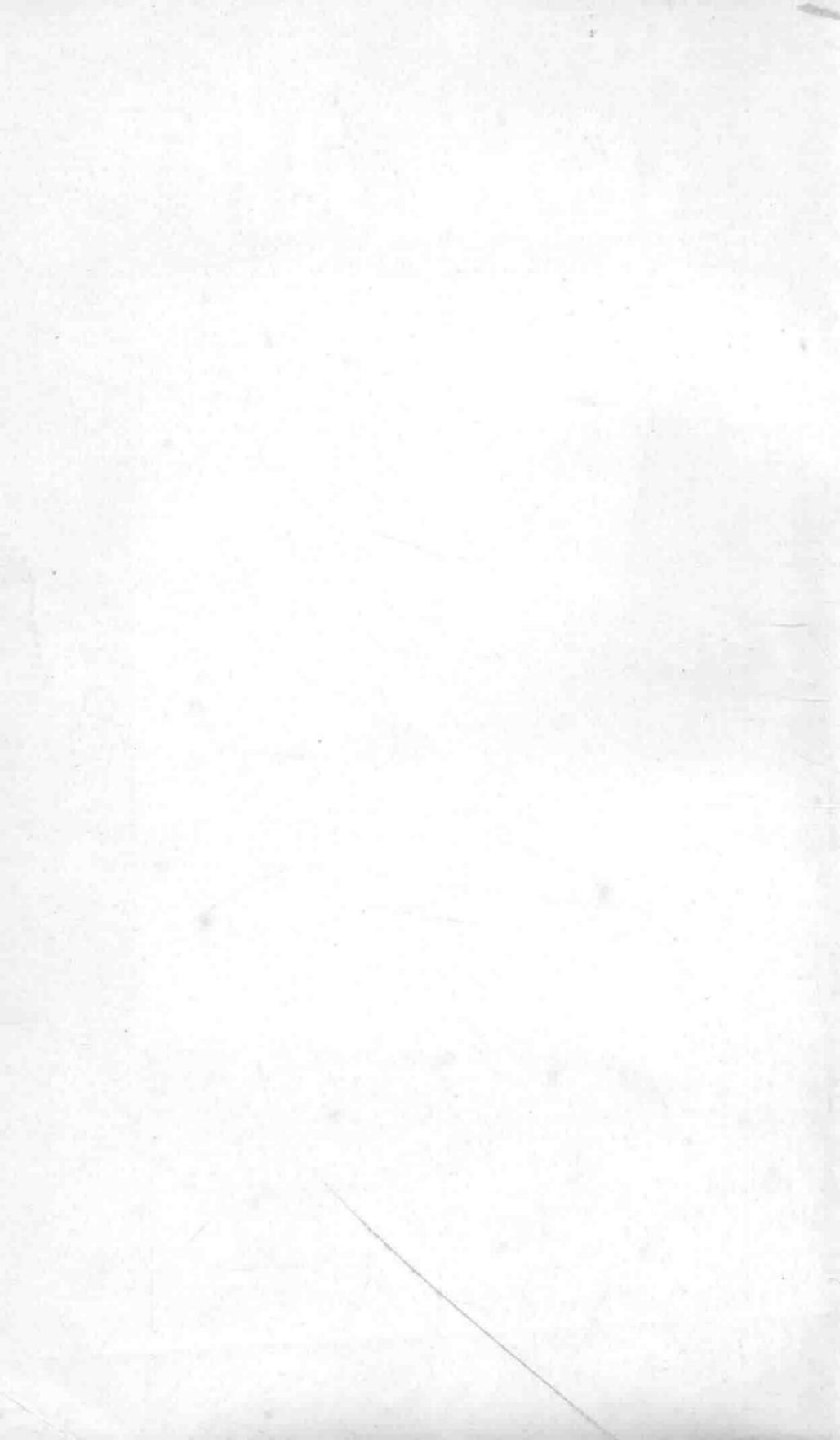
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INTRODUCTION

Doctors are sometimes criticised for not telling patients enough about the nature of their illness, about what has to be done for it and about the likely outcome. In part no doubt this is because it is difficult to express in plain English the technical language in which doctors necessarily think but it is also a consequence of the very limited knowledge which many laymen have of the way in which the body works and how it may go wrong.

This book is not a substitute for doctors and still less is it a do-it-yourself kit for household medicine. It is simply an attempt to make medical advice about your heart more understandable and therefore more useful.

1 WHAT YOUR HEART DOES

SUMMARY

Every part of the body needs blood if it is to work properly. Blood circulates. The heart drives the circulation; it is therefore essential to life. Blood is propelled from the left side of the heart in arteries and carries oxygen and nutrients to the tissues. The tissues use these and form carbon dioxide, water and acid end products in the process. Blood removes these from the tissues before returning in veins to the right side of the heart. From there it is propelled through the lungs, where it is oxygenated and then returned to the left heart for recirculation.

The working of the body depends upon a complex process known as metabolism. Metabolism uses oxygen and breaks down nutrients to supply energy to the body and to maintain the health of the tissues. It is in this process that carbon dioxide, water and other end products, particularly acids, are formed. They have to be removed by the blood and eventually taken to the lungs for reoxygenation, to the liver for reprocessing or to the kidneys for removal from the body.

Failure of the blood supply to any part of the body naturally has serious consequences. In the brain for example it is likely to damage and even destroy the area affected and to cause paralysis of the part of the body which it controls. This is commonly the face, or an arm or a leg. Brain damage often comes on suddenly. When this happens the patient loses consciousness, at least for a time, and is said to have suffered a "stroke". Gradual failures of the