

# **MEDICATED INTRAUTERINE DEVICES**

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**Edited by**

**E. S. E. Hafez & W. A. A. Vanos**

# MEDICATED INTRAUTERINE DEVICES PHYSIOLOGICAL AND CLINICAL ASPECTS

*edited by*

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## PREFACE

Extensive basic research and clinical trials have been conducted on inert and medicated intrauterine devices. In the last decade, substantial progress has been made in understanding the modes of action and the physiological mechanisms of IUDs – progress resulting from modern techniques and instrumentation in microanatomy, immunology, pathology, endocrinology, biochemistry and biophysics. Such studies, however, are scattered in such a wide spectrum of journals that the clinician and family planner can hardly keep up to date with the advances.

An attempt is made in this volume to coordinate physiological and clinical parameters. Little is known about the possible role of diet, diseases and environmental factors.

The contributors, from a wide selection of professional groups, each have considerable experience

in some aspect of reproductive physiology, gynecology, or family planning. There is in this volume an attempt to provide a total coverage of current progress in medicated intrauterine devices. The volume is intended for a broad readership, including physicians, medical workers, medical personnel, and administrators in family planning. It is hoped that this volume will serve as a stimulus to basic scientists and clinicians concerned with intrauterine devices to intensify their research toward better contraceptive techniques.

*September 1980*

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E.S.E. H.  
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## FOREWORD

The role of the physician in improving the quality of life for the individual, and in family and community health, necessitates his familiarity with the benefits and risks of fertility regulation methods. The direction of the physician's activities – whether he provides care for the individual or within the framework of health programs – will further determine his need to be informed about social, political, religious and economic factors that influence population changes. It should be recognized that population change can never be examined as an isolated phenomenon. A uniform approach on a worldwide basis is not possible when evaluating regulation of population changes. The variations existing in different communities, regarding demographic characteristics, understanding of population issues, and the acceptability of the available contraceptive methods, preclude uniformity.

There is a relationship between state of health and fertility. Notwithstanding other factors that may be involved, fertility regulation for health reasons is universally accepted. The social and economic consequences of population growth have induced many countries to set up national programs for fertility regulation, but it is ultimately up to the individual physician to apply his knowledge and expertise of existing methods in the most responsible way.

Developments in the field of fertility regulation in recent years may not have been revolutionary, but advances have been made. In the area of oral contraceptives, the doses administered have lessened without the apparent sacrifice of contraceptive reliability. Epidemiological investigations have made major contributions to the identification of risk factors, allowing for a better selection of

women with regard to the choice of contraceptive method. Among these methods, the intrauterine device (IUD) presently occupies a predominant position.

The first publications regarding a practical IUD date from the beginning of this century, but the widespread application of such devices did not occur until about 1960, since then the devices in existence have improved. Research efforts have been geared toward making IUDs as effective as possible while at the same time minimizing the number of side effects. The results indicate that acceptability no longer poses significant problems.

As with all other methods of contraception, it is essential for the physician to put the benefit-risk ratio of the IUD in a proper perspective. Therefore, he must have thorough knowledge, not only of the practical results obtained with certain devices but also of the objective scientific data accumulated in the process of development.

This book deals mainly with one intrauterine contraceptive device. Different aspects of research that have led to the profiling of this device are described. The positive, favorable clinical results obtained over a number of years have justly made the IUD widely acceptable.

It is hoped that the reader of this book will gain an insight not only into the present and possible future methodologies in IUD development, but also into the possibilities and limitations of practical application of this particular device which, according to the reported clinical results, has definite advantages.

T. VOSSENAAR

This volume is dedicated to

WALTER H. SEEGER

Chairman of the Department of Physiology  
upon his retirement from Wayne State University

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## PHYSIOLOGICAL AND CLINICAL ASPECTS



