

Handbook

of

*diet and
nutrition in the
menstrual cycle,
periconception
and fertility*

edited by:

Caroline J. Hollins-Martin

Olga B.A. van den Akker

Colin R. Martin

Victor R. Preedy

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Preface

The reproductive cycle in women is rather complex and can be considered to begin with epigenetic programming and ending with post-menopause. Intervening steps involve a variety of processes including for example the development of the sex organs, menarche, episodic endocrine cycles, menstruation, ovulation and conception. The optimal conditions for these processes results in a fertile individual in which conception, pregnancy and birth of an offspring can arise. However all of these processes can be influenced by diet and nutrition and *vice versa*. Body composition also has an impact on the menstrual cycle and fertility. These factors in turn also influence body composition *per se*. For example, the menstrual cycle has a marked influence on diet selection and food consumption. Similarly, either food deprivation, dietary excess or obesity can result in marked changes in the menstrual cycle with a concomitant effect on fertility. The complex web of diet, nutrition, body composition, menstruation, ovulation and fertility can only be understood and untangled if there is a comprehensive source of scientific material. Ideally such text should be within a single source that is structured in such a way as to treat all these aforementioned factors as being dependent on each other in multiple ways. The 'Handbook of diet and nutrition in the menstrual cycle, conception and fertility' achieves this by having a structured focus with the following main parts:

1. setting the scene;
2. puberty, menarche and the menstrual cycle;
3. conception;
4. fertility-infertility.

Coverage includes micronutrients in general, calcium, iodine, vitamin D, folic acid and folate, herbal medicine, nutraceuticals, chocolate, fertility, ageing, psychophysiological changes, menarche, body composition, premenstrual syndrome, treatment of premenstrual syndrome, body mass index, socioeconomic status, neuroimaging, appetite, dietary strategies, exercise, lipid levels, eating disorders, obesity and underweight, barriers, weight loss advice, endocrine-disruptors, anaemia, gastric bypass, ovarian function, embryo development, folliculogenesis, infertility, implantation, dietary intolerance, endometriosis, gastrointestinal symptoms, polycystic ovary syndrome, metabolic syndrome, diabetes, hypocaloric diets and many other area relevant to the interrelations between diet, nutrition, the menstrual cycle, conception and fertility.

Contributors are authors of international and national standing, leaders in the field and trendsetters. Emerging fields of science and important discoveries relating to the menstrual cycle, periconception and fertility will also be incorporated in the 'Handbook of diet and nutrition in the menstrual cycle, conception and fertility'. This represents one stop shopping of material related to the menstrual cycle, periconception and fertility and will be essential reading for endocrinologists, cardiologists, nutritionists, dietitians, paediatricians, pharmacologists, health care professionals, research scientists, general practitioners as well as those interested in women's health in general.

The editors

