Eating disturbances, physical activity and chronic stress

Eating disturbances, physical activity, chronic stress as well as the environment, influence the future fertility of young women. The impairment of the hypothalamic pituitary ovarian function, as well as that of the adrenal and thyroid glands are involved in the pathogenesis of infertility.

Both leptin and gonadotropins secretion are strongly suppressed in the acute stage of anorexia nervosa. However controversy remains whether normalization of leptin levels are crucial for the normal function of the hypothalamic - pituitary - ovarian axis.

Strenuous exercise affects the age of menarche. Young girls often present amenorrhea or oligomenorrhea. The female athlete triad is characterized by amenorrhea, eating disorders and osteoporosis. Ovarian function is also impaired and the future fertility is affected.

Stress (chronic or acute) is a complex process related to environmental, eating and psychological factors. The sympathetic nerves, under stress, affect ovarian function i.e interstitial glands and follicles. Intermittent or repeated stress exposure may place a greater load on hypothalamic - pituitary, adrenal and gonadal equilibrium, as signified by reduced ovarian function and decrements in estrogen release.

Environment, climate effects, endocrine disrupting chemicals, drugs, the occupation and hobbies affect fertility and the perinatal outcome. All the above should be seriously taken into account for the prevention of the young woman's health and the future fertility.