Male reproductive health optimising fertility

1 in 3 fertility problems can be attributed exclusively to MALES.

MAJORITY OF MALE INFERTILITY IS IDIOPATHIC.

LOW SPERM COUNT
< 15 million sperm per millilitre

40% is the minimum percentage of active sperm required in a sample to be considered normal motility.

4% is the minimum percentage of normal shaped sperm required in a sample to be considered normal.

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SPERMATOGENESIS

Hypothalamus releases gonadotropin-releasing hormone (GnRH), which triggers the pituitary gland to release follicle-stimulating hormone (FSH) and luteinising hormone (LH).

FSH and LH travel via the bloodstream to the testes.

In the testes, LH stimulates Leydig cells to secrete testosterone. FSH and testosterone stimulate Sertoli cells which facilitate the production of sperm.

The Sertoli cells release inhibin and Leydig cells release testosterone into the bloodstream.

Testosterone inhibits GnRH production from the hypothalamus and LH from the anterior pituitary.

Inhibin inhibits the release of FSH from the anterior pituitary.

INFLUENCES ON SPERM HEALTH

IDIOPATHIC

Damage to sperm DNA may result in miscarriage or infertility

INFECTION

Damage to sperm membrane decreases motility and the sperm’s ability to fuse with oocytes

TESTICULAR TRAUMA

Damage to sperm membrane decreases motility and the sperm’s ability to fuse with oocytes

ENVIRONMENTAL

Heat, pollution, heavy metals, plasticisers, pesticides/herbicides

LIFESTYLE

Smoking, alcohol, obesity, stress, advanced paternal age, poor diet

IATROGENIC

Medications, medical procedures

AUTOIMMUNE

Sperm antibodies, genito-urinary obstruction, testicular inflammation

CHRONIC DISEASE

Diabetes, haemoglobinopathies, hyperhomocysteinaemia

TRIBULUS

↑ sperm motility

↑ sperm count

↑ testosterone

COENZYME Q10

↑ sperm count

↑ sperm motility

↑ testosterone

ZINC

↑ sperm motility

↑ sperm count

↑ testosterone

Mediterranean diet

↑ sperm motility

↑ sperm count

↑ testosterone

CARNITINE

↑ sperm motility

↑ sperm count

WITHANIA

↑ sperm motility

↑ sperm count

↑ testosterone

SELENIUM

↑ sperm motility

↑ sperm count

VITAMIN C

↑ sperm motility

↑ sperm count

VITAMIN E

↑ sperm motility

↑ sperm count

COEYTOXICITY

↓ sperm motility

↓ sperm count

↓ testosterone