PATIENT INFORMATION LEAFLET

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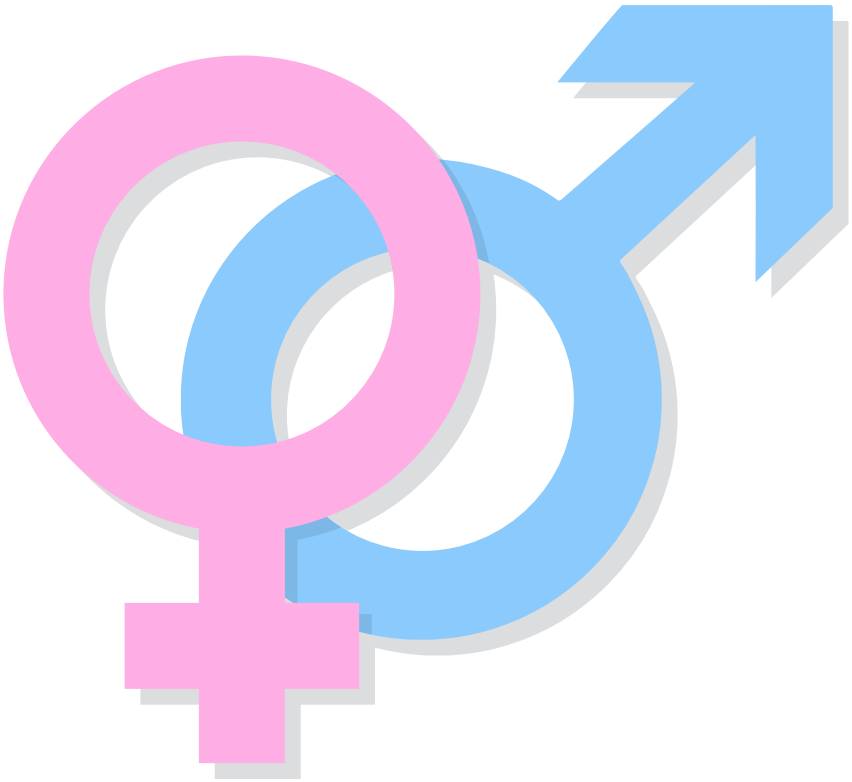

HORMONAL BLOOD TESTS

BACKGROUND

Hormones are the body's messenger molecules, controlling functions like energy, mood, metabolism and reproductive health. When something doesn't feel right – maybe unexpected tiredness, shifts in weight or problems with sleep or stress, your doctor may order some of the tests below to see what's going on.

Checking hormone levels helps us read your body's signals, detecting the potential problems and then making a bespoke plan to rebalance things. We've outlined some of the common hormonal blood tests below.

Cortisol

- **Where it's made:** Produced by the adrenal glands, located on top of each kidney.
- **What it does:** Known as the "stress hormone," cortisol helps regulate the body's response to stress, blood sugar, metabolism, and inflammation.
- **Timing:** Best measured between 08:00 and 09:00 when levels naturally peak.
- **What it means:**
  - **High cortisol:** May indicate stress, Cushing's syndrome, or adrenal gland disorders.
  - **Low cortisol:** Could signal adrenal insufficiency or Addison's disease, affecting energy levels and stress response.

Insulin

- **Where it's made:** In the pancreas.
- **What it does:** Regulates blood glucose by allowing cells to take up glucose from blood.
- **Timing:** Typically measured after fasting for 8-12 hours.
- **What it means:**
  - **High insulin:** Suggests insulin resistance, often linked to prediabetes or metabolic syndrome.
  - **Low insulin:** May indicate insufficient pancreatic function or low blood sugar levels.

DHEA (Dehydroepiandrosterone)

- **Where it's made:** In the adrenal glands.
- **What it does:** A precursor hormone, DHEA can be converted into other hormones like oestrogen and testosterone and plays a role in sexual health, brain and immune function.
- **Timing:** Can be measured at any time of the day as levels remain stable.
- **What it means:**
  - **High DHEA:** Could indicate polycystic ovary syndrome (PCOS) or adrenal tumours.
  - **Low DHEA:** Often related to adrenal insufficiency or hypopituitarism.

Testosterone

- **Where it's made:** In the testes in men, and in smaller amounts by the adrenal glands and ovaries in women.
- **What it does:** Essential for muscle strength, bone density, and libido in both men and women.
- **Timing:** Best measured in the morning between 07:00 and 10:00 due to diurnal variation.
- **What it means**:
  - **High testosterone:** May point to PCOS, adrenal gland disorders, or certain tumours.
  - **Low testosterone:** Linked to fatigue, reduced libido, or conditions like hypogonadism.

Oestrogen

- **Where it's made:** Primarily the ovaries, with smaller amounts from the adrenal glands and fat tissue (including men)!
- **What it does:** Supports reproductive health, bone development, regulation of adipose tissue and skin healing.
- **Timing:** Ideally timed according to menstrual cycle phase for premenopausal women. Menopausal women can measure at any time.
- **What it means:**
  - **High oestrogen:** May be due to hormone therapy, ovarian cysts, or certain tumours.
  - **Low oestrogen:** Common in menopause or ovarian insufficiency, potentially leading to symptoms like hot flashes or bone loss.

TSH (Thyroid-Stimulating Hormone)

- **Where it's made:** In the pituitary gland in the brain.
- **What it does:** Regulates thyroid function, which controls metabolism, energy, and temperature regulation.
- **Timing:** Ideally measured in the morning (09:00) when TSH levels are most consistent.
- **What it means:**
  - **High TSH:** Suggests underactive thyroid (hypothyroidism), which may cause fatigue or weight gain.
  - **Low TSH:** Indicates overactive thyroid (hyperthyroidism), often associated with weight loss, anxiety, or irregular heartbeat.

LH (Luteinising Hormone)

- **Where it's made:** In the pituitary gland in the brain.
- **What it does:** In women, it triggers ovulation and supports ovarian function. In men, it stimulates testosterone production in the testes.
- **Timing:** For women, LH should ideally be measured in line with the menstrual cycle phase. In men, timing is less critical but is usually done in the morning.
- **What it means:**
  - **High LH:** May indicate menopause, polycystic ovary syndrome (PCOS), or primary ovarian or testicular failure.
  - **Low LH:** Could be due to pituitary or hypothalamic problems, leading to reduced reproductive function.

FSH (Follicle-Stimulating Hormone)

- **Where it's made:** In by the pituitary gland in the brain.
- **What it does:** In women, FSH helps regulate the menstrual cycle and stimulates egg production. In men, it aids in sperm production.
- **Timing:** Best measured days 2-5 of the menstrual cycle. Timing is less critical for men but often done in the morning.
- **What it means:**
  - **High FSH:** May indicate menopause, ovarian failure, or testicular dysfunction.
  - **Low FSH:** May result from pituitary or hypothalamic dysfunction, affecting fertility.

Additional Notes

- Hormonal tests can be highly sensitive to timing and circadian rhythms. For accurate results, testing is best coordinated ensure tests are performed as recommended.
- Our longevity clinic partners with world-class laboratories to provide the most accurate and comprehensive evaluations tailored to your needs.

Explore More

Learn how these tests are part of our personalised health assessments:

Preventative Health Assessments

Discover the latest insights into longevity and anti-ageing medicine:

Anti-Ageing Microsite

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