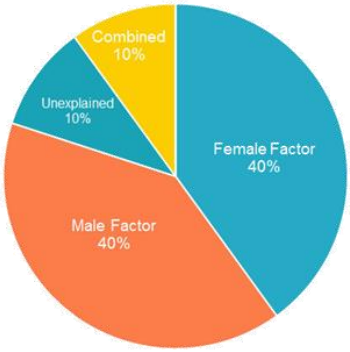
ADVANCED FERTILITY PANELS

Infertility is caused by factors from both male and female partners. However, in approximately 10% of cases, traditional infertility evaluations do not identify the underlying cause.
Genetic factors are a key contributor to infertility in both genders, with chromosomal abnormalities being one of the most prevalent causes.



MALE INFERTILITY

Components of Male Infertility Panels

- ✓ **Hormonal evaluations**
- ✓ **Semen Analysis**
- ✓ **Karyotyping**
- ✓ **Y Chromosome Microdeletions**
- ✓ **Sperm DNA fragmentation**
- ✓ **CFTR Mutation in CBAVD**

Indications

- Abnormal Semen Analysis
- Unexplained Infertility
- In vitro Fertilization (IVF) Failures:
- Cryptorchidism
- Abnormal Hormone Levels
- Family History of Genetic Disorders

Monogenic causes of Male infertility

Syndromic Infertility

- ✓ Hypopituitarism
- ✓ Hypogonadotropic hypogonadism
- ✓ Primary ciliary dyskinesia
- ✓ Klinefelter's syndrome
- ✓ Noonan syndrome

Non-Syndromic Infertility

- ✓ No phenotype detected
- ✓ Infertility is detected after a failed ART cycle

ANDERSON ADVANCED GENETIC TESTING FOR MALE INFERTILITY

Male Fertility genes covered **1108**

Male Polymorphism genes covered **115**

1 — 2 — 3

Male infertility gene panel

Male Infertility Gene Panel	Hypogonadotrophic Hypogonadism (21 genes) Congenital Adrenal Hyperplasia (4 genes) Androgen insensitivity syndrome (3 genes) Non-obstructive azoospermia (117 genes) Oligospermia (48 genes) Asthenozoospermia (78 genes) Fertilization failure (8 genes) Teratozoospermia (242 genes) Globozoospermia (7 genes)	Macrozoospermia (1 gene) Primary Ciliary Dyskinesia (30 genes) Multiple Morphological Abnormalities Of The Sperm Flagella (38 genes) Obstructive azoospermia (2 genes) Unspecified syndrome with male infertility (177 genes) ACMG carrier Screening (113 genes) ACMG Secondary Findings (73 genes

FEMALE INFERTILITY

Monogenic causes of Female infertility

Syndromic Infertility

- ✓ Hypogonadotropic hypogonadism
- ✓ Congenital Adrenal Hyperplasia
- ✓ Premature ovarian insufficiency
- ✓ Recurrent miscarriages/ molar pregnancies

Non-Syndromic Infertility

- ✓ No phenotype detected
- ✓ Infertility is detected after a failed ART cycle

Indications

- ○ Unexplained Infertility
- ○ Advanced Maternal Age
- ○ History of Recurrent Pregnancy Loss
- ○ In vitro Fertilization (IVF) Failures
- ○ Abnormal Ovulation
- ○ Abnormal Hormone Levels
- ○ Family History of Genetic Disorders

ANDERSON ADVANCED GENETIC TESTING FOR FEMALE INFERTILITY

680 — **Female Fertility Genes**

30 — **Female Polymorphism Genes**

ANDERSON FEMALE INFERTILITY PANEL COVERS

Female Infertility Gene Panel	Hypogonadotropic Hypogonadism (44 genes) Congenital Adrenal Hyperplasia (4 genes) Primary Ovarian Insufficiency (67 genes) Polycystic ovary syndrome (7 genes) Empty follicle syndrome (4 genes) Resistant Ovary syndrome (2 genes)	Infertility due to oocyte factors (27 genes) Unspecified syndrome with female infertility (15 genes) Female infertility, unspecified (505 genes) ACMG carrier Screening (113 genes) ACMG Secondary Findings (73 genes)

- Reducing time to pregnancy
- Enhanced IVF success rate
- Genetic panel updated with scientific evidence
- Minimizing risks and uncertainty
- Cost efficiency in fertility treatments
- Advanced polymorphism panels can explain failed cycles and aid in personalized ART protocols