Dr Sarah Wakeman

Obstetrician and Gynaecologist

Medical Director, Fertility Associates Christchurch

Saturday, August 13, 2016 (Room 11)

15:30 - 16:00 Fertility 101: Screening, the Biological Clock & When to Refer

Fertility 101

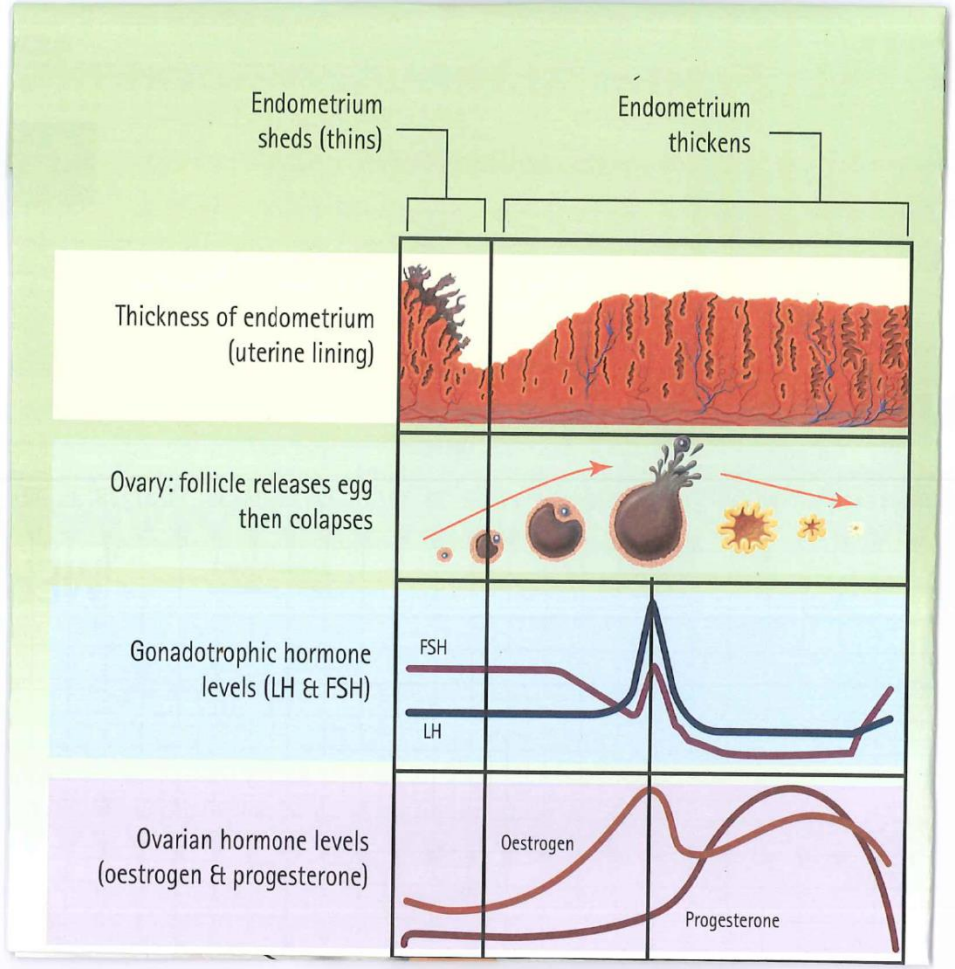
Sarah Wakeman

Medical Director, Fertility Associates Christchurch

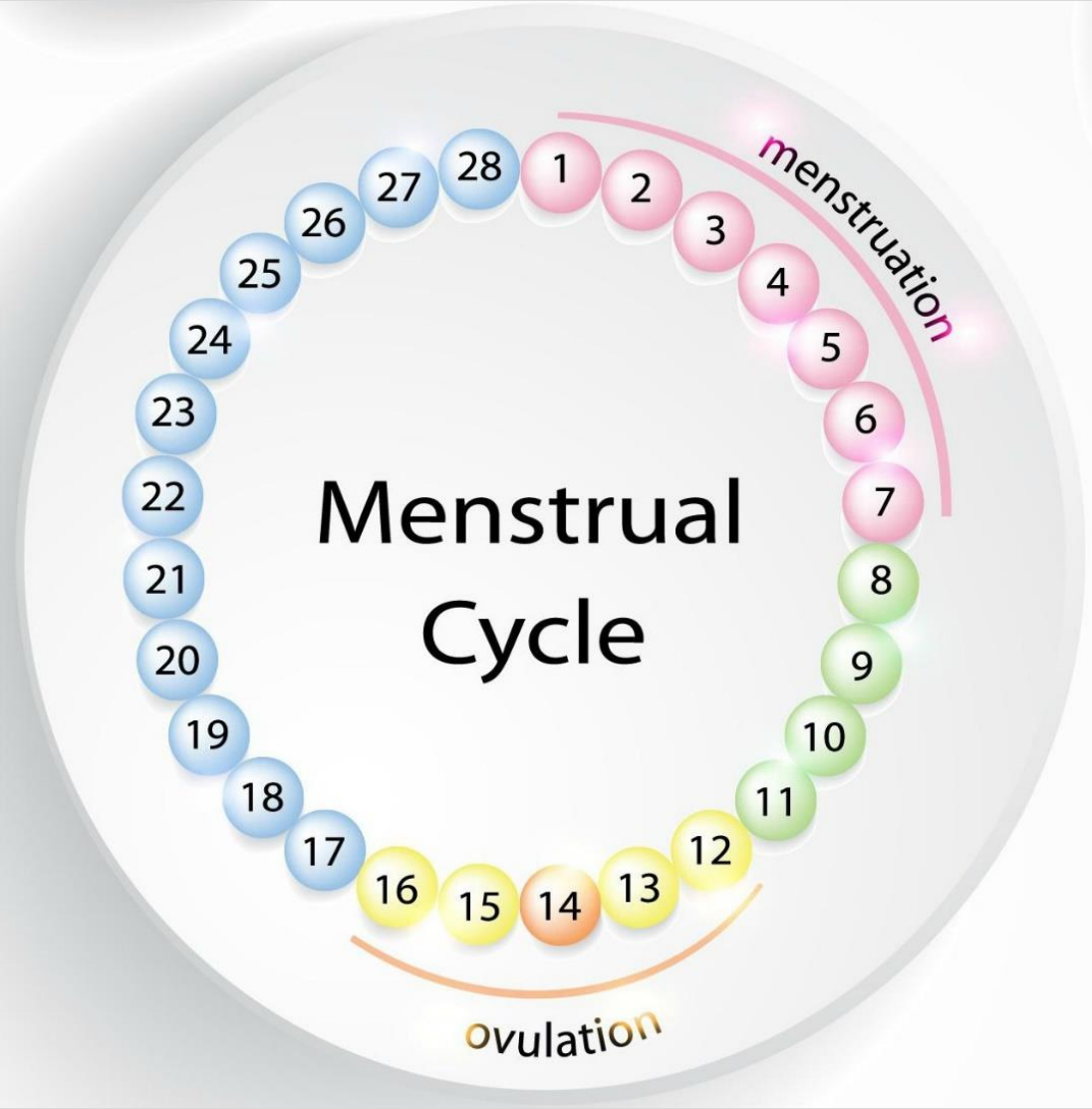
What will I talk about?

Menstrual Cycle, Screening, Biological clock, Fertility Tips & When to refer.

Menstrual Cycle



FSH
E2
LH
P4


Menstrual Cycle
menstruation
ovulation
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

Screening WOMAN

- Clinical history
- Previous pregnancies/children/TOP
- Length of trying to conceive/prior contraception
- Cycle length/ovulation
- Periods – length/regular/irregular/heavy/painful
- Previous gynaecological surgeries/STI’s/smear history
- Previous illnesses/current meds
- Family fertility history/early menopause/genetic condition

Screening WOMAN

- Lifestyle

- ETOH/Drugs

- BMI/exercise

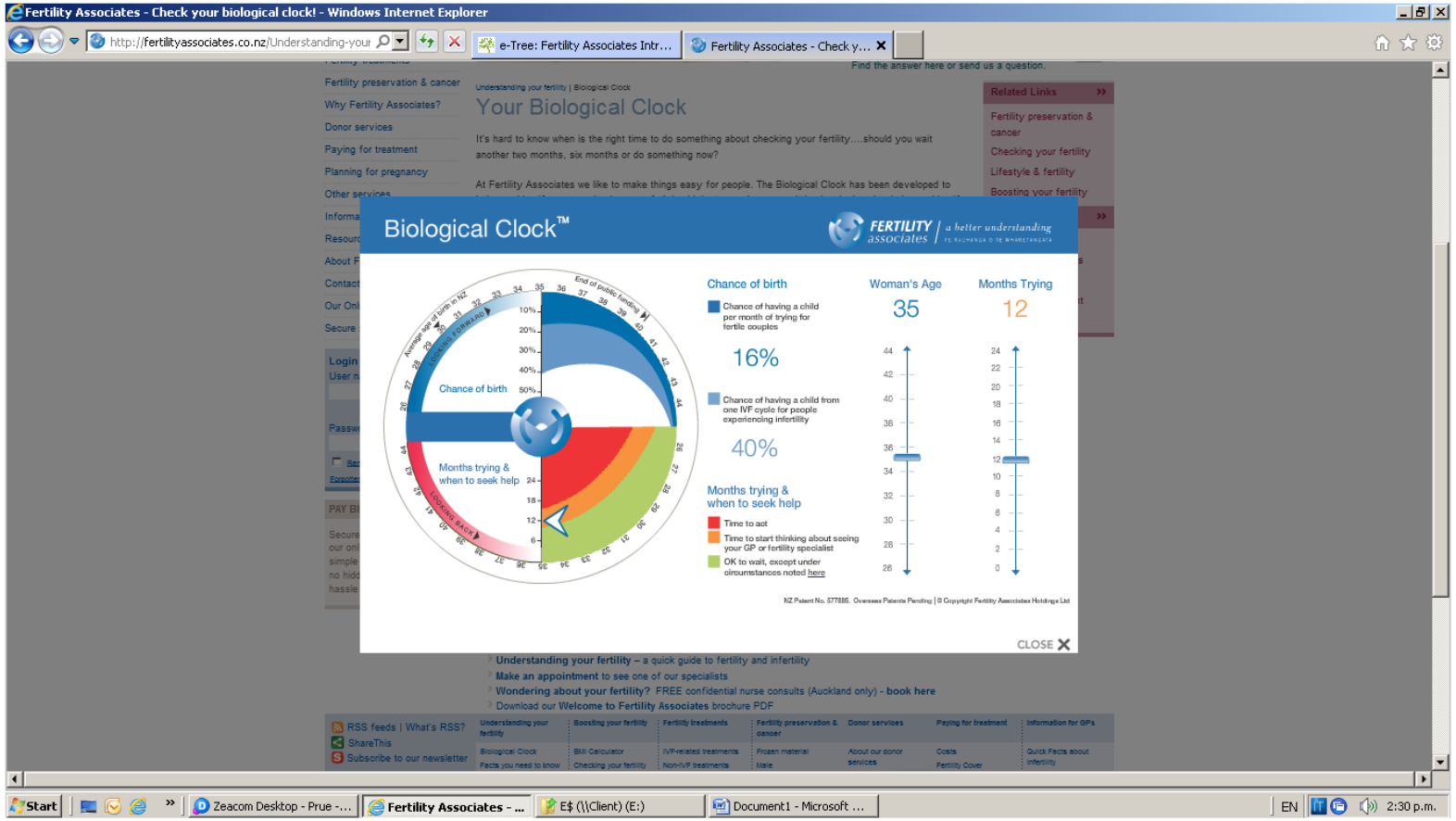
- Smoking/Caffeine

- Biological clock
- Folic acid + Iodine or Elevit
- Immunity to chicken pox/rubella

Screening MAN

- BMI/exercise/testosterone supplements
- Smoking/ETOH/spa pools
- previous illnesses or groin surgery/injuries/meds

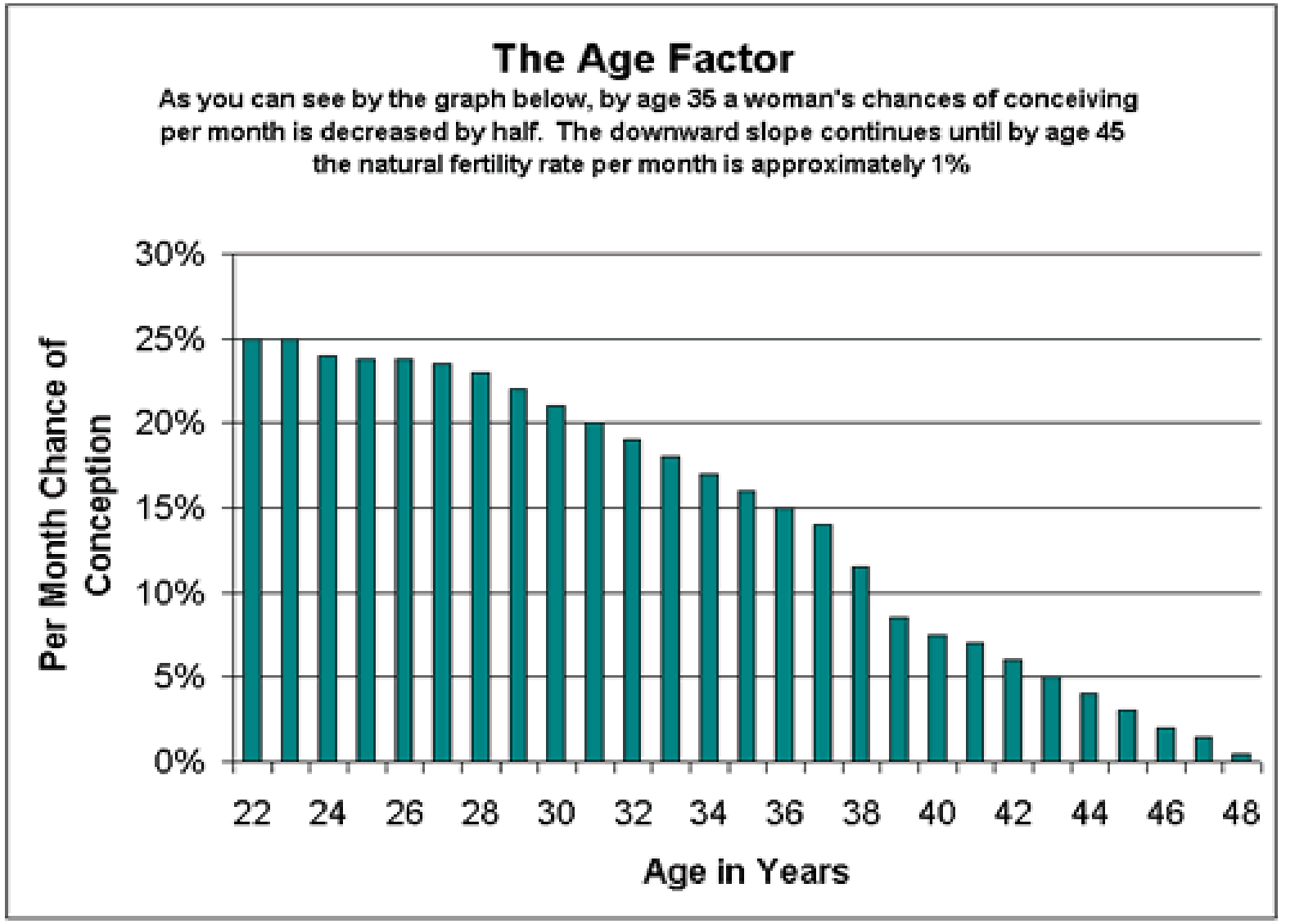
Biological Clock



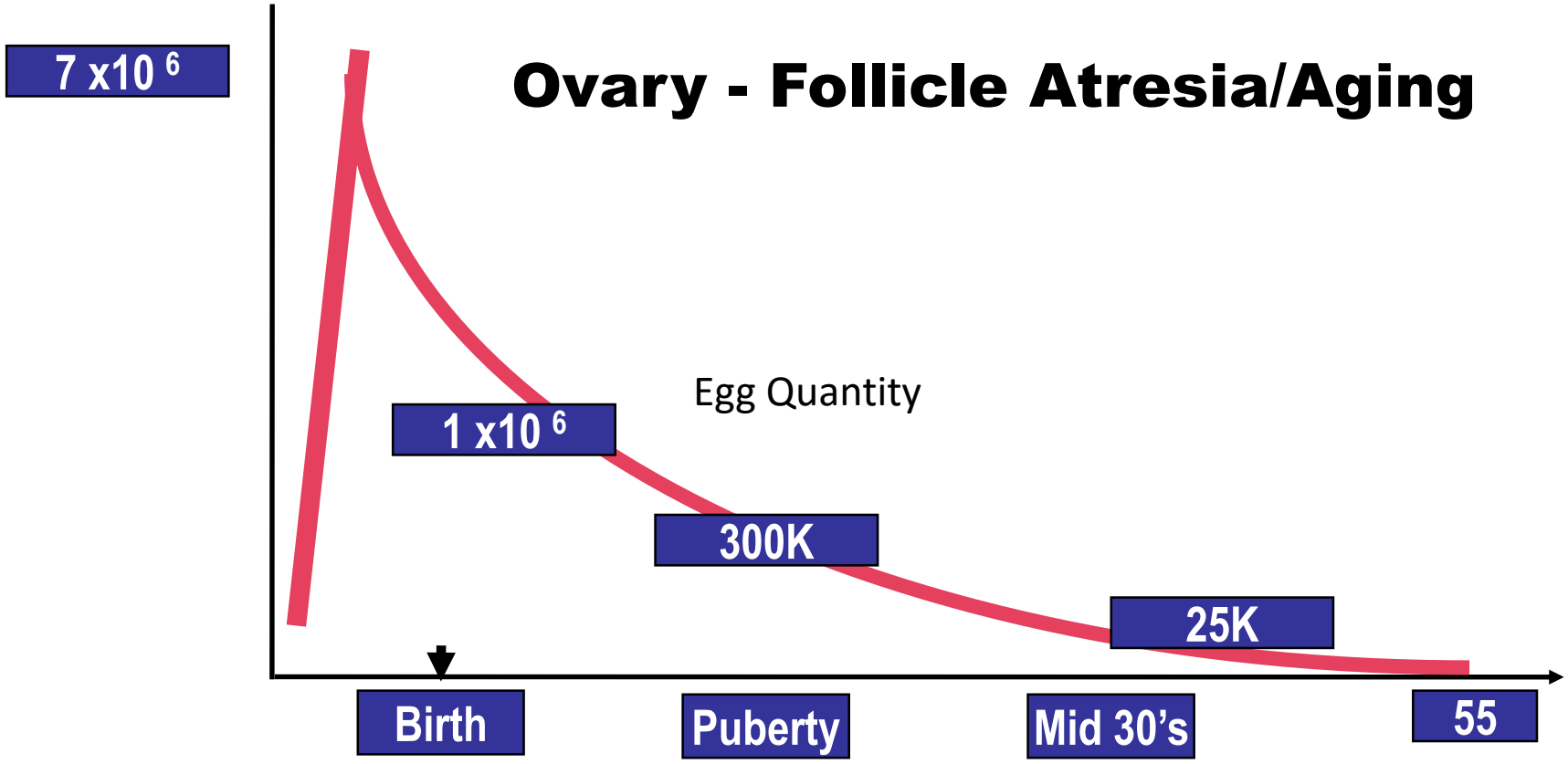
Age HER

- The chance of pregnancy falls after the age of 35 and virtually disappears by the age of 45
- Advancing age increases risk of miscarriage
- Genetic abnormalities increase like Down's Syndrome

- About 10% of women experience menopause 5 years earlier than average – around the age of 45 instead of 50. About 1% 10 years earlier. AMH test may give prior warning about the possibility of early menopause.


The Age Factor
As you can see by the graph below, by age 35 a woman's chances of conceiving per month is decreased by half. The downward slope continues until by age 45 the natural fertility rate per month is approximately 1%
Per Month Chance of Conception
30%
25%
20%
15%
10%
5%
0%
22
24
26
28
30
32
34
36
38
40
42
44
46
48
Age in Years

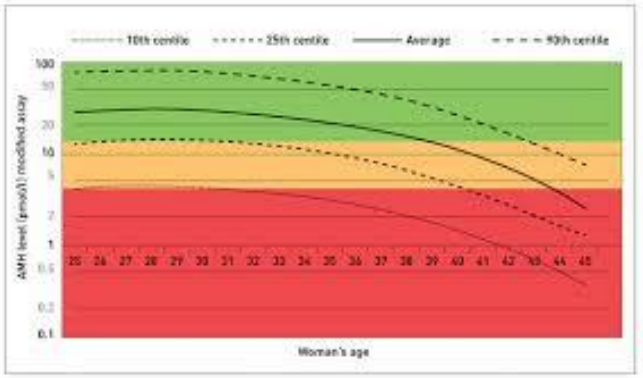
Egg Quantity



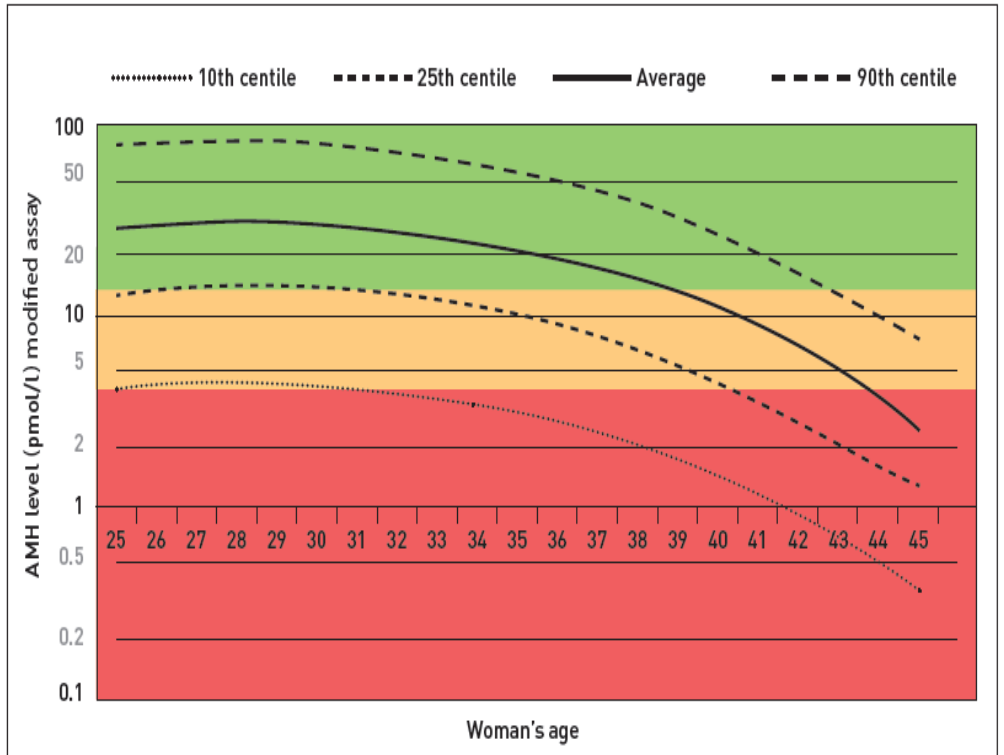
AMH : Anti-Mullerian Hormone

AMH testing to help predict:

- Ovarian reserve
- Approximate age of the onset of menopause
- Likely response to ovarian stimulation for IVF
- AMH produced by granulosa cells
- AMH level declines with age as the number of eggs fall
- At menopause the AMH level is very low.



AMH



Green zone	Above the 25th centile for younger, fertile women	Very likely normal ovarian reserve – age is the best predictor of your future fertility	80% chance of 6 or more eggs in IVF
Orange zone	Between the 25th and 10th centiles for younger, fertile women	Some women in this range will have reduced ovarian reserve	50% chance of 6 or more eggs in IVF
Red zone	Below the 10th centile for younger, fertile women	Very likely reduced ovarian reserve	20% chance of 6 or more eggs in IVF

Age HIM

- Men dont have an equivalent to menopause although the number of sperm made each day and their quality do fall with a man's age.
- Pregnancies from older men do show a higher incidence of some types of abnormalities among children – such as schizophrenia and autism.

Fertility Tips...

FERTILITY associates | a better understanding
TE RAUHANGA O TE WHARETANGATA

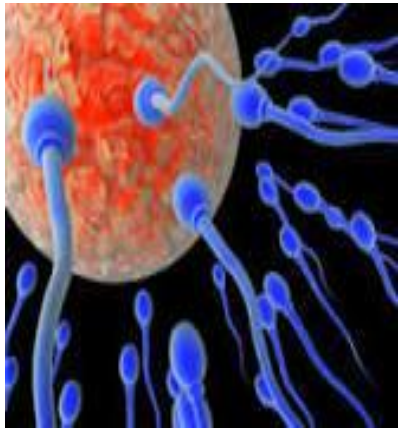
Get Ready, Get Set...

- Conception is very much about chance, and some people are just luckier than others.

- Timing is everything and the right time will be different for everyone.
- Knowing when ovulation is likely to occur will help
- Age single most important factor

Having fun making babies…

- 85% of couples conception will occur without difficulty. Normal biological chance & time are all that are required.
- Ovulation is a singular event in time. Fortunately sperm usually have the capacity to hang around for a while. Intercourse after ovulation very rarely results in success.



Cervical mucous

The mucous changes from a sticky white substance to something increasingly like egg white at the pre ovulatory day. Mucous detection is easy and cheap and vastly superior to temperature chart recording.

LH Kits

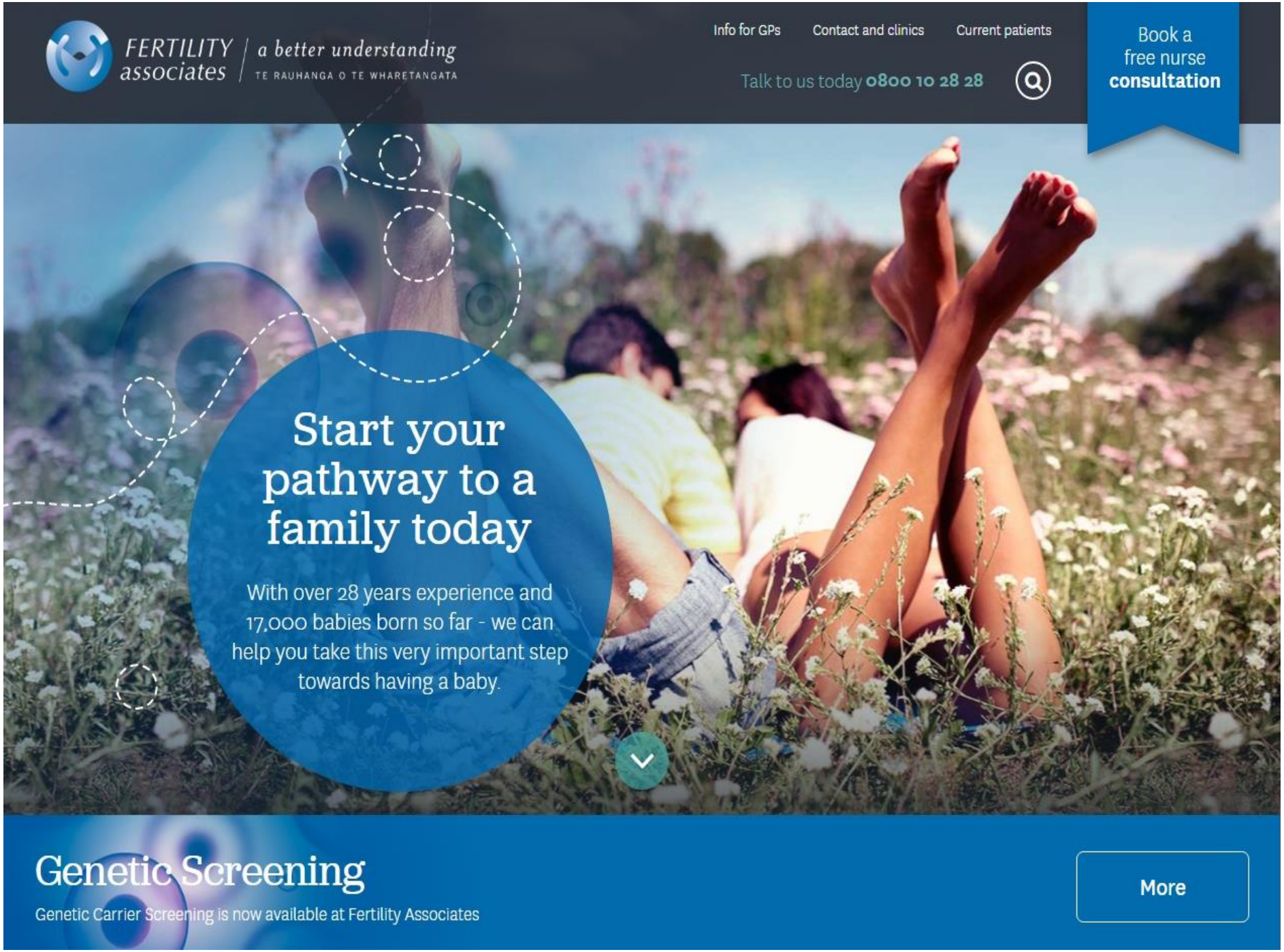
- Urine test detect the LH rise that begins to occur some 36 hours before ovulation
- If menstrual cycle is irregular?
- Basal body temperature rises after ovulation

When and how?

- Intercourse on every second day through the likely time of ovulation is all that should be necessary
- Sperm are like vegetables, they are best used fresh! Saving up to provide an attack of nuclear proportions is not a helpful plan. Old sperm function much less than fresh and you want quality rather than quantity.
- Any sex position
- Lubricant: many commonly used lubricants kill sperm. Safe ones include Preseed, olive oil,

Referral

FERTILITY associates | a better understanding
TE RAUHANGA O TE WHARETANGATA


FERTILITY associates
a better understanding
TE RAUHANGA O TE WHARETANGATA
Info for GPs
Contact and clinics
Current patients
Talk to us today 0800 10 28 28
Book a free nurse consultation
Start your pathway to a family today
With over 28 years experience and 17,000 babies born so far - we can help you take this very important step towards having a baby.
Genetic Screening
Genetic Carrier Screening is now available at Fertility Associates
More

We have 20 fertility clinics across the country…

Refer when

- No pregnancy and biological clock indicates status in RED or ORANGE region

Or

- Any abnormal results on investigation

Referral

Early referral if

- Extreme anxiety about fertility
- Women aged 35 years or older
- Irregular cycles or anovulation
- Severe sperm factor
- Previous abdominal/pelvic/urogenital surgery
- Previous STD
- Two or more consecutive miscarriages
- Abnormal pelvic or genital exam (woman or man)
- Family history of menopause between 40-45 years or earlier
- Genetic conditions

Immediate referral ***before starting cancer treatment (sperm, eggs, embryos or ovarian/testicular tissue can be stored prior to cancer treatment)***

Fertility Treatment – Who Uses It?

- 1 in 5 couples experience Infertility
- Tubal Factor
- Endometriosis
- Polycystic Ovary Syndrome
- Male Factor Infertility
- Unexplained Infertility
- Advancing Maternal Age
- Heterosexual Couples
- Single Women
- Same Sex Couples
- Cancer Patients
- Women who face removal of their ovaries
- Couples who know they carry genetic problems

Waitlist for treatment

- The wait to treatment varies across the country
- Generally **12–18 months**, you can check this when you make your referral to your local clinic.
- **Patients can access private fertility treatment whilst on the public waiting list**

FERTILITY associates | a better understanding
TE RAUHANGA O TE WHARETANGATA

Case Study CC

Female 27 & Male 27

Irregular periods, anovulation due to underweight BMI 18 & exercise

4 x CC cycles

Pregnant on 4th cycle

Case Study Letrozole

Female 30 & Male 31

Irregular periods, anovulation due to PCOS

1 x Let cycles

Pregnant on 1st cycle

Case Study IUI

Female 33 & Male 36

6 years trying, unexplained.

CC X 4 (1 miscarriage)

IUI x 2 (1st stopped as over response)

Now pregnant with IUI

Case Study IUI + IVF

Female 28 & Male 31

PCOS + Male out of country often for work

IUI x 3 (fresh/frozen sperm)

IVF

Embryo replacement = Baby girl

12 B FZ

Case Study MOH ICSI

Female 37 & Male 42

5 years infertility, regular cycles/pelvis, reduced sperm quality

Enrolled for public treatment

1 MOH ICSI – 2 TER NP

2 MOH ICSI – 1 ER, (2 B FZ) – Delivered baby boy

Case Study – Same Sex Couple

Female 27 & Female 38

Chosen clinic donor sperm- egg sharing/ICSI

Both had replacements

1 x baby boy

Case Study IVF + TER

Female 42 & Male 43

Trying for 6 months

AMH = 0, best chance DO

Matched with a clinic Donor 32 (not met)

IVF

1 fresh ER & 2 B FZ

Pregnant & delivered baby Girl

Case Study ICSI + SSR

Female 34 & Male 43

Trying 9 months > Severe oligospermia

Hx bilateral orchidopexy age 4, AMH 8

ICSI cycle – emergency SSR – D3 replacement – Baby boy

ICSI 2nd cycle – planned SSR + OPU – D3 replacement – Baby girl

Any questions...