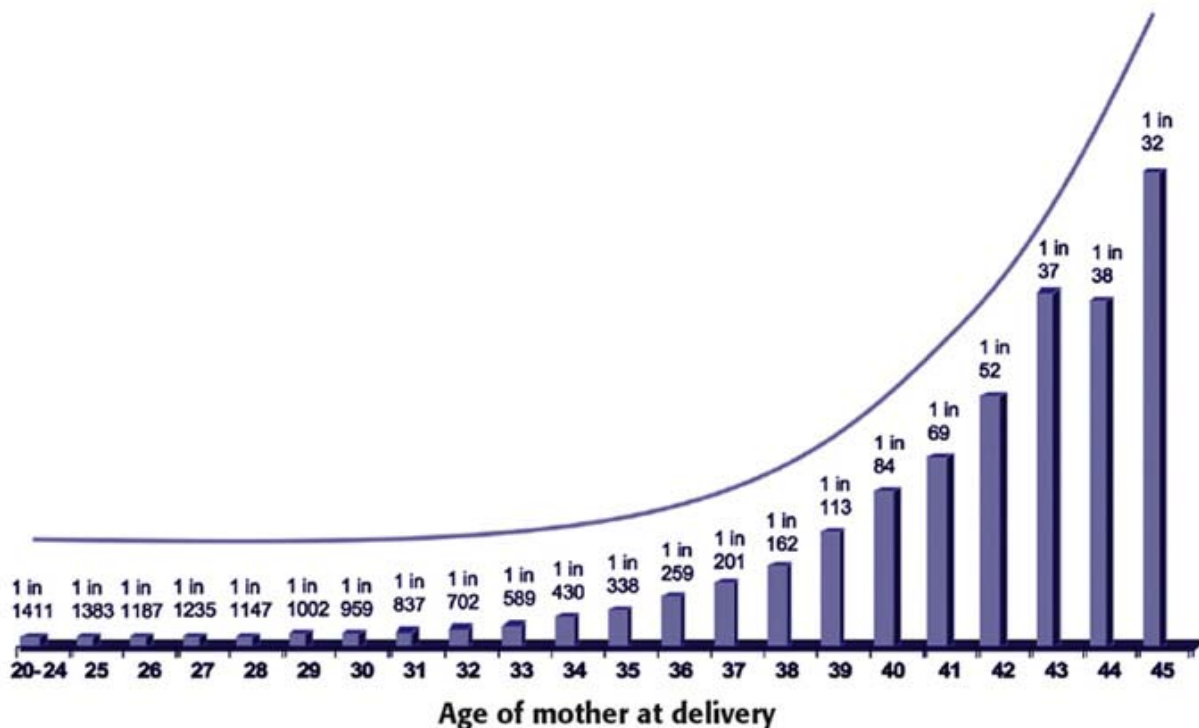


Preconception Health Care Checklist – the details

Medical issues

Reproductive Life Plan

- Does the woman want to have children? If so how many and how far apart does she want them?
- Has she considered the age that she desires to have her first child?
- Advise that from a medical point of view the ideal is to have the first child by 30 as fertility declines with age and risk of fetal abnormality increases with age



Maternal Age and risk of live born baby with Down's syndrome

Devised from Table 2, Morris, JK, Mutton DE, Alberman E, 2005. Corrections to maternal age-specific live birth prevalence of Down's syndrome, *Journal of Medical Screening*, 12:202.

Reproductive history

- Have there been any complications with previous pregnancies? Miscarriages, stillbirths, birth defects, low birth weight, preterm birth, previous congenital malformation, preeclampsia, gestational diabetes, postnatal depression?
- Is there any history of conditions such as polycystic ovarian syndrome, previous ectopic pregnancy or sexually transmitted infections that might put the woman at risk of delayed fertility or infertility?
- Is the woman over 35 years of age?

Medical History

- Are there any existing medical conditions that may affect future pregnancies such as diabetes, thyroid disease, hypertension, renal disease, psychiatric illness, epilepsy or thrombophilias?
- Are these currently well managed?
- Do any medications need to be altered prior to the onset of pregnancy?

Medication Use

- Does the woman use any medications currently? Are any of these Category C or D medications?
Commonly used medications to inquire about include:
 - ACE inhibitors
 - Isoretinoin
 - Anticonvulsants
 - tetracyclines
- Does she use any over the counter medications?
- Does she use any vitamins or supplements?

Genetic and or family history

- Assess risk of chromosomal /genetic disorders based on family history, ethnicity and consanguinity. Specific questions should be asked about chromosomal problems, structural problems e.g. neural tube defects, metabolic, haematological or neurological disorders, mental retardation and cystic fibrosis.

Genetic Inheritance and examples of genetic diseases

Inheritance pattern	Explanation	Examples
Autosomal recessive	<ul style="list-style-type: none">• A mutation in the same gene is inherited from each parent• Each parent is a healthy carrier as they have a second unaffected copy of the gene• If both parents are carriers of an autosomal recessive condition there is a 1:4 (25%) chance that each child will be affected• It is estimated that all people carry 5-10 autosomal receive mutations	<ul style="list-style-type: none">• Cystic fibrosis• Spinal muscular atrophy• Haemachromatosis• Alpha-thalassemia• Beta-thalassemia• Sickle-cell disease• Tay Sachs Disease
Autosomal Dominant	<ul style="list-style-type: none">• Having a mutation in one pair of a particular gene is sufficient to result in the disease• The child of a person with a dominant condition has a 1:2	<ul style="list-style-type: none">• Neurofibromatosis type 1• Huntington's disease

	(50%) chance of inheriting the condition	
X-linked	<ul style="list-style-type: none"> Because females have two X chromosomes, mutations in X chromosome genes cause mild or no manifestations in females but fully manifest in males who have only one X chromosome If a woman carries a mutation in a gene on one of her X chromosomes there is a 1:2 (50%) chance that any son she has will be affected by the particular condition 	<ul style="list-style-type: none"> Fragile X Haemophilia A Duchenne muscular dystrophy

Frequency of carrier status and disease in ethnic groups for conditions for which carrier screening is commonly offered

Disease	Ethnic group	Carrier frequency	Incidence in newborns
Cystic fibrosis	Caucasians	1:25	1:2500
Tay sachs disease	Ashkenazi Jews	1:28	1:3100
Sickle-cell anaemia	Black Africans	Up to 1:5	Up to 1: 100
Beta-thalassemia	Mediterranean	Up to 1:5	Up to 1: 100
Alpha-thalassemia	South-east Asians and Chinese	1:10	1:400

Tables adapted from Delatycki, MB & Massie J. Antenatal and pre-pregnancy screening for genetic conditions. Australian doctor. June 2006

General Physical Assessment

- When was the last Pap smear? If more than two years ago, do prior to pregnancy. Assess body mass index, blood pressure and ask about periodontal disease

Substance Use

- Ask about tobacco, alcohol and illegal drug use

Screening

Suggested screening

- Rubella serology if not documented in the last 12 months
- Varicella serology unless there is a clear history of previous infection
- Blood type and Ab
- STI screening as indicated
- Psychosocial health issues, such as depression, anxiety and domestic violence
- Cystic fibrosis screening can be offered privately through [Genetic Health Services Australia](#)
- Other screening offered will depend on genetic and family history

Vaccinations

- If rubella serology is negative offer MMR vaccine and advice to avoid pregnancy for 28 days after vaccination
- If not immune to varicella two doses of vaccine are recommended a month apart> The woman should be advised to avoid pregnancy for 28 days after the last vaccine
- Offer pertussis vaccination (Boostrix) to both partners prior to pregnancy
- Consider influenza vaccination
- Consider Hep B and pneumococcal vaccination in high risk groups

Lifestyle Issues

Family Planning

- If the woman is not planning to become pregnant discuss effective contraception and make her aware of the availability of emergency contraception
- If she wants to conceive offer advice about:
 - Expected fertility rates:
 - 20-30% chance of conception each month
 - In young couples 90% will conceive within 12 months of trying 95% within two years and 5-10% have problems with infertility
 - Women older than 35 or those smoking more than 20 cigarettes a day can take twice as long to conceive
 - Risks of delayed childbearing: i.e. infertility, increased rates of fetal abnormality, decreased ability for reproductive technology to achieve a pregnancy
 - Fertility awareness:
 - Women always ovulate two weeks before their period
 - Ovulation is heralded by the presence of fertile mucous which is copious, slippery and has the appearance of egg white. When the presence of fertile mucus peaks, ovulation occurs within 24 hours
 - Eggs can survive up to 24 hours and sperm up to 5 days within the genital tract, therefore the optimum conditions for conception are to have sperm present waiting for release of the egg

- Intercourse need only occur every second day around the time of intercourse to maximize the chance of conception (is between day 10-16 of a 28 day cycle)
- Ovulation predictor kits may be helpful in determining if ovulation has occurred
- For more information about fertility awareness go to

Folic acid

- Folic acid supplementation in the periconceptual period prevents 70% of neural tube defects
- Women should take 0.4-0.5mg of folate for at least one month prior to pregnancy and for three months afterwards
- Women at high risk should take 5mg of folate. High risk women include:
 - Those with a reproductive or family history of NTDs,
 - women on antiepileptics
 - women with type 1 diabetes
 - for further information on folate [click here](#)

Healthy weight, nutrition & exercise

- Caution against being over or underweight.
- Recommend regular moderate intensity exercise
- assess risk of nutritional deficiencies (e.g. vegan, lactose intolerance, calcium or iron deficiency)
- adequate levels of iodine with a recommended daily intake of 150Ug a day are recommended prior to and during pregnancy though this is not a mainstream guideline recommendation
- Advise about risk of excessive mercury levels in some fish. Pregnant women or women intending to become pregnant within the next six months should be careful about which fish they eat. They should:
 - Avoid fish with high levels of mercury (shark, ray, swordfish, barramundi, gemfish, orange roughy, ling and southern bluefin tuna).
 - Limit other fish, such as tuna steaks, to one portion per week or two 140g cans of tuna per week (smaller tuna contain less mercury).

However, there is no restriction needed on the amount of salmon, including canned salmon, which is eaten. Some fish that are caught in Victorian inland waters by family or friends may also have high levels of mercury. Pregnant women should also limit their consumption of these fish to one portion per week.

Studies on eating patterns in Australia show that most pregnant women probably do not eat fish in amounts that would be likely to harm their unborn babies, even considering the new lower level set by leading health authorities.

For further information [click here](#)

Psychosocial Health:

- Provide support and identify coping strategies to improve emotional health and wellbeing

Smoking, alcohol and illegal drug cessation (as indicated)

- Smoking is associated with reduced fertility as well as pregnancy complications such as placental abruption, preeclampsia, preterm delivery and low birth weight

- NHMRC guidelines on alcohol in pregnancy are about to be released. These recommend that women abstain during the preconception period as well as throughout pregnancy as there is no known safe limit of alcohol consumption. Alcohol use during pregnancy has been associated with fetal alcohol syndrome
- Illegal drug use during pregnancy can have serious consequences for an unborn child and should be stopped prior to conception. Patients using recreational drugs may require referral for counseling or detox

Healthy environments:

- Repeated exposure to hazardous toxins in the household and workplace environment can affect fertility and the risk of miscarriage and birth defects.
- Discuss avoidance of TORCH infections:
 - Toxoplasmosis – avoidance of cat litter, garden soil, and raw/undercooked meat
 - Cytomegalovirus, parvovirus B19 (fifth disease) – Wash hands frequently and observe strict infection control for child and health care workers
 - Listeriosis – avoidance of pate, soft cheeses, pre-packaged salads, deli meats, and chilled/smoked seafood. For more information about listeriosis [click here](#)