PRECONCEPTION CARE AND FERTILITY FITNESS

A healthy lifestyle is recommended prior to and during pregnancy. You may be surprised to learn that your diet, lifestyle and environment all have a profound bearing on your individual reproductive health and on the health of a baby. Put simply, preconception care involves making sure that there is an adequate supply of all factors essential to the health of sperm, eggs, fertilisation, a healthy pregnancy and including delivery of a healthy baby.

Given the formation of mature sperm takes approximately 2 months and maturation of eggs requires approximately 100 days prior to ovulation, your reproductive health TODAY is actually your health, diet, lifestyle and environment 2 to 3 months PRIOR.

Therefore to ensure healthy sperm and eggs, preconception care should be implemented a few months prior to conception. However some recommendations may take longer to implement and a couple should ideally work towards implementing and maintaining these dietary, lifestyle and environmental changes even during fertility treatments, to maximise their chances of conception.

DIET & EXERCISE

You are what you eat. Optimal wellbeing is essential for overall health including fertility fitness. Following a sensible diet and exercise programme can help to boost your reproductive health. Women who are either markedly overweight or underweight may have difficulty conceiving.

Both partners should eat a variety of foods. Whole grains, legumes, vegetables, fruit, nuts and seeds. Eat a healthy diet with at least five servings of fruits and vegetables a day, along with whole grains and some good quality protein such as meats, fish, eggs, or milk. Drink at least 8 to 10 glasses of filtered water a day.

To maintain fitness and help keep your weight under control, aim to undertake moderate, regular exercise for an average of 30 minutes per session, three times a week.

A good quality vitamin and mineral supplement taken daily, is recommended for men and women, in conjunction with a well balanced sensible diet, prior to and during your fertility treatment. Importantly, a vitamin and mineral supplement on its own does not make up for poor food choices.

Men may want to consider supplements of Vitamin E, C, zinc and selenium (found in most multivitamin preparations) if they wish to “boost” their sperm count. Zinc is a necessary cofactor for the production of the principal male sexual hormone testosterone. Zinc has been shown to be essential in improving sperm count, motility and fertilisation. It is also vital for the operation of many of the enzymes that govern men’s sexual function. Vitamin E, C and selenium are powerful antioxidants which help to protect sperm against free radical damage and increase sperm health.

Women may enhance their fertility with Zinc, Vitamins C, B6 and E as they play an important role in regulating hormone levels. Low levels of magnesium, potassium and zinc have been associated with decreased fertility.

If you would like further guidance regarding your diet, an appointment to see a qualified dietician at City Fertility Centre can be arranged for you. Please contact the IVF Nurse Co-ordinators for more information on this service.

FOLIC ACID

Taking folic acid before pregnancy and for the first three months of pregnancy can reduce your chance of having a baby with neural tube defects such as spina bifida and anencephaly. We recommend that women planning a pregnancy increase their dietary intake of folic acid, a minimum of a month prior to and particularly in the month of treatment. We also recommend a folic acid supplement (0.5mg or 500mcg daily), a minimum of a month prior to and particularly in the month of treatment. Folic Acid supplementation should also continue for the first three months of pregnancy. Recent studies indicate an adequate intake of vitamin B6 is necessary for full absorption of folic acid.

Folic acid is a water-soluble vitamin found in many fruits (particularly oranges, berries and bananas) and leafy green vegetables such as spinach, silverbeet, broccoli, brussel sprouts, cabbage, endive and avocados. It is also found in cereals, legumes and liver. It is available in tablet form, which can be purchased from a chemist or health food store.

WEIGHT

There is a clear relationship between weight and fertility. As the body’s weight moves away from the normal range (above or below), fertility decreases. Pregnancy may still occur, but not at the normal rate, and the miscarriage rate is also higher than average. Weight loss may be essential before you start any other treatment program.

ALCOHOL

Both male and female patients are advised to stop drinking alcohol prior to treatment. In women, it may raise the risk of miscarriage. Caffeine is present in tea, coffee, cola drinks and some over-the-counter medication. Caffeine reduces the absorption of iron, and increases the risk of miscarriage. Caffeine may have an effect on a woman’s fertility and may be detrimental to the pregnancy.

SMOKING

Apart from the long-term health risks, women who smoke have 2.5 times higher incidence of infertility, have a 50% higher increase in miscarriage, premature birth and low birthweight babies than nonsmokers. This is directly related to the fact smoking decreases uterine blood flow and circulating oxygen to the cells of the body, including the reproductive systems. Women who smoke also have poorer responses to fertility treatments, earlier onset of menopause and lastly a higher rate of intrauterine growth retardation, congenital abnormalities and infant death.
Men who smoke have noted reductions in sperm count, motility and normal appearances of sperm. There is an associated higher incidence of impotence, increased birth defects, higher rates of childhood cancer and asthma in their children.

**MEDICATION**

Some medications may have an adverse effect on either female or male fertility or they may become ineffective when taken with certain supplements. Should you be taking any medication, please speak to the staff at City Fertility Centre to ensure that this is suitable.

**DRUGS**

The use of any recreational drugs should be avoided due to adverse health effects on the person and unborn baby. Cocaine use in pregnant women may increase the risk of permanent kidney damage in the baby. Marijuana and anabolic steroids may affect male sperm counts.

**CAFFEINE**

Caffeine may have an effect on a woman’s fertility and increase the risk of miscarriage. Caffeine is present in tea, coffee, cola products, chocolate, some foods and medicines. Caffeine reduces the absorption of iron, and destroys B-complex vitamins. Ideally caffeine should be avoided by men and women prior to and during fertility treatment and pregnancy. A caffeine free alternative can be taken instead.

**LUBRICANTS**

Lubricants may affect sperm quality and should be avoided if you are trying to conceive. All lubricants must be avoided during collection of semen for testing at the City Fertility Centre laboratory as the lubricant may damage the viability of the sperm.

**ENVIRONMENTAL FACTORS**

Certain household products or occupations expose people to toxins including heavy metals, chemicals, and organic solvents (for example, oven cleaners, ammonia-based cleaners, fertilisers, furniture polishers, pesticides, certain cosmetics and paints). Heavy metals such as lead, cadmium, mercury, copper and aluminium interfere with essential enzyme systems important in reproductive health and foetal development.

**HERBAL REMEDIES AND COMPLEMENTARY THERAPIES**

Many herbal remedies are considered beneficial to overall wellbeing and can be safely taken prior to your treatment or in between treatments. However at City Fertility Centre we do advise you to stop herbal remedies when you commence medications during treatment. Many herbal remedies will effect a hormonal action which may interfere or counteract the action of your fertility medications. Herbs should be used with the same caution you would use with any other drug. If you or your partner are taking herbal supplements, please advise your Clinician.

There exists an ever growing range of complementary therapies offering different kinds of help and support to couples who plan to have children. Issues around fertility can provide an emotional strain on couples and many of the complementary therapies available may benefit you as part of an integrated health plan to help improve your health and emotional wellbeing before, during and after fertility treatment.

Complementary therapies including, yoga, acupuncture, massage, meditation and aromatherapy are often used by patients in conjunction with fertility treatments. There is very little direct evidence to suggest these therapies may assist with fertility issues however there is a strong body of evidence which supports these therapies as having the ability to induce relaxation and reduce emotional and physical stresses. Focusing care on your mind and body will help overall in improving coping responses in daily life and during treatment.

**STRESS**

IVF can be a very emotionally and physically challenging time. In the lead up to, or during IVF treatment, understandably, you may feel stressed or anxious. This is quite a common experience shared by many patients. It is important to ensure you get adequate rest and relaxation during treatment. Let go of all daily non essential activities and concentrate on your own well-being first. Maintaining a positive state of mind improves your health and well being and your chances of a successful pregnancy. A degree of stress in your life is inevitable, but how you deal with it is important. At City Fertility Centre our qualified counsellors are available to assist couples suffering from stress as a result of their infertility problems. Support groups also welcome couples looking for help in coping with the stress of infertility.