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Women’s Health would like to congratulate Management Committee member, Professor Jeanine Young and her team for winning the Team Innovation Award at the 2014 HESTA Australian Nursing Awards for the Pēpi-pod® Program.

The Pēpi-pods, consisting of a polypropylene box, culturally appropriate fabric cover, tight fitting mattress and bedding, were distributed to families in Cape York. They provide a portable safe sleeping place for babies who aren’t in cots and are aimed at reducing the high rates of Sudden Unexpected Death in Infancy (SUDI) among Aboriginal and Torres Strait Islander Communities.

Apunipima Cape York Health Council partnered with the University of Sunshine Coast, Children’s Health Queensland and Change for our Children New Zealand, to roll out the Pēpi-pod® Program.

Professor Young explains “the Pēpi-pod fits between parents in bed, enabling babies to safely co-sleep with them”.

“We know that infant deaths are associated with co-sleeping in hazardous circumstances; particularly for preterm or low birth weight babies. Or where smoking, alcohol, drug use or unsafe sleep environments are present.”

Although we have come a long way in reducing SUDI in non-indigenous infants, these gains have not been experienced to the same degree in the indigenous population. Aboriginal and Torres Strait Islander babies are 3.8 times more likely to die suddenly and unexpectedly than non-indigenous infants.

The Pēpi-pod® Program is one innovation that is helping to ‘Close the Gap’ between the health of indigenous and non-indigenous people.

In other Women’s Health news, we recently held a ‘Putting the U Back into Mum’ videoconference workshop. The workshop was attended by 58 women from ten towns in regional and remote Queensland. Women from Alpha, Boulia, Cunnamulla, Dalby, Gladstone, Julia Creek, Monto, Mundubbera, Texas and Windorah heard how to keep mentally healthy and how looking after mum was good for baby’s health too.

Kirsten Braun
Editor
Five causes of female infertility

1. Ageing
A woman’s age is the most significant factor influencing her fertility. Women are born with a fixed number of eggs and so as they age so do their eggs. A woman’s fertility starts to decline in her early 30s and by age 35 it has dropped by approximately 40%. By age 40 a woman’s fertility has declined even further. In addition, as women age conditions like endometriosis can also progress to a level where they may impact on fertility as well (see endometriosis section). Unfortunately, there appears to be a lack of recognition of the impact that age has on fertility. Celebrities having babies in their 40s, for example, has given many women the impression they can leave their childbearing to later in life. Similarly, many women falsely believe that infertility treatments like IVF can overcome any fertility issues. The latest figures on assisted reproductive technology in Australia and New Zealand show that for women aged 30-34 years the chance of a live birth per treatment cycle was 25.3%. For women aged 35-39, this percentage dropped to 16.9% and for women 40-44 years it was only 6.6%.

2. Polycystic ovarian syndrome (PCOS)
PCOS is a hormone imbalance which results in disrupted menstrual and ovulation cycles. It is the most common cause of infertility due to anovulation (no ovulation or egg is released). The name of the condition comes from the presence of tiny cysts on the outside of the ovaries. While many women have polycystic ovaries, not all women have PCOS. Women with PCOS have additional symptoms including irregular periods, excess weight (particularly in the tummy area), excess hair on the face and body, acne and male pattern baldness. It is estimated that 30% of infertile women suffer from PCOS.

3. Endometriosis
Endometriosis is a condition in which the tissue that lines the uterus (endometrial tissue) grows in other parts of the body, usually in the pelvis. This stray endometrial tissue bleeds in the same way as the lining of the uterus, except the blood/tissue is trapped causing irritation and inflammation. Scar tissue can form resulting in adhesions which can stick pelvic structures together. The most common symptoms of endometriosis are period pain and/or pelvic and abdominal pain. Endometriosis can affect fertility by damaging the ovaries so that ovulation cannot occur. Similarly, damage and/or blockages to the inside of the fallopian tubes can impede the journey of the egg to uterus. It is also thought that endometriosis can have an impact on the lining of the uterus, affecting the implantation of a fertilised egg. If women experience pain during sex from endometriosis they might also be reluctant to have sex, reducing their chances of getting pregnant.

4. Weight
A woman’s weight is an important consideration in her fertility. Women who are underweight and/or have a low percentage of body fat (ie., athletes) can experience irregular menstrual cycles and issues with ovulation. Being overweight or obese can also interfere with normal menstruation and ovulation. In addition, overweight and obese women have a higher risk of miscarriage and other pregnancy complications and a lower success rate with infertility treatments such as IVF. Women who find it difficult to lose weight should be assessed to see if they have PCOS (see PCOS section) as this is a common symptom. Women can often improve their chances of pregnancy by relatively small changes to their weight. For example, in women who are overweight or obese, a 5% weight loss can be enough to restore a regular menstrual cycle and ovulation.

5. Sexually transmitted infections (STIs)
If a STI such as chlamydia or gonorrhoea goes untreated it can lead to pelvic inflammatory disease (PID). PID is the infection or inflammation of the organs and tissues in the pelvis. Unfortunately, women infected with a STI, particularly chlamydia, don’t always experience any symptoms or the symptoms are vague so they do not seek treatment. If PID is left untreated it can cause scarring in the fallopian tubes which can narrow them, blocking the path of the egg. If a fertilised egg becomes trapped in a blocked fallopian tube an ectopic pregnancy can occur (where the foetus develops outside the uterus). This is a serious, potentially life-threatening health condition that requires immediate medical attention. Studies suggest that one episode of PID decreases a woman’s chance of a successful pregnancy by 10%. After two or more episodes of PID a woman’s risk of becoming infertile is about 50%.

Kirsten Braun
The importance of sleep

While we acknowledge the importance of sleep for children we often fail to recognise its importance in adults’ lives.

We know that children need an established bedtime routine and if it doesn't occur it can result in poor concentration, behavioural problems and even lack of appetite. Similarly, we know that if a day time nap is too long children will not be sleepy at bedtime. As adults, however, we don’t seem to pay enough attention to our own sleep routines or acknowledge the negative effects of inadequate sleep.

Sleep cycles

We often think of sleep as consisting of a stage of feeling sleepy followed by a deep sleep which we then gradually wake from in the morning. In fact our sleep is regulated into two different types of sleep, rapid eye movement (REM) sleep and non-REM sleep.

Stages of sleep

Non-REM sleep

| Stage 1 Transition to sleep – Start to feel drowsy. Between waking and sleeping. The stage where people may experience the sensation of ‘falling’. Easily awakened but may not recognise having been asleep. |
| Stage 2 Light sleep – Body temperature drops and breathing and heart rate slows. Body prepares itself for deep sleep. |
| Stage 3 Deep sleep or slow wave sleep. Breathing, heart rate and brain waves become slow. Growth and repair occurs at this stage. Difficult to wake and if woken will feel disoriented and groggy. Some dreaming, but dreams are more fragmented, thought-like and less visual. |

REM sleep

Approximately 70-90 minutes after falling asleep we enter REM sleep. The eyes flicker rapidly and breathing, heart rate and blood pressure are irregular. REM sleep is also the time in which we dream more. Arm and leg muscles are temporarily paralysed.

Sleep and women’s life stages

For women different life stages can have a large impact on their sleep quality. Pregnant women, for example, often experience interrupted sleep because they have to get up to go to the toilet frequently. They may also experience reflux and/or find it difficult to get comfortable in the latter stages of pregnancy. Mothers are another group that commonly do not get a good night’s sleep. Mothers of newborns will wake to provide regular feeds through the night. Mothers of young children may need to assist them in getting back to sleep if they awaken during the night. In addition, mothers get up to see to children who are unwell, having nightmares or for night time toilet training.

Menopause is also a stage where women find their sleep can suffer. Night sweats can cause many interruptions, with women even needing to get up and change their nightwear and/or bed linen. Menopausal women also experience itchy skin which can make sleep more difficult and a small percentage will suffer from a condition called formication which feels like insects are crawling on or under the skin. Even for women not suffering from these physical symptoms of menopause, they may still experience insomnia at menopause.

Sleep deprivation

Not getting sufficient sleep or having poor quality sleep can lead to sleep deprivation. Sleep deprivation has many effects on both our body and mind. When we are sleep deprived we have a shorter attention span, slower reaction time, diminished motor skills, poor concentration, poor memory and reduced decision-making skills. Due to these changes we are also more at risk of making a mistake or sustaining an injury.

Not having enough sleep also affects our mood, making us more likely to be bad tempered or impatient. Long term sleep deprivation has been linked to a higher risk of developing depression and anxiety. Not getting enough sleep is also thought to lead to weight gain by interfering with the hormones that both stimulate our appetite and tell us when we are full.
A loss of deep sleep is most damaging as this sleep stage is where the body restores its energy levels. Deep sleep also allows the body to repair and regenerate tissue and to strengthen the immune system. We do not need to lose a lot of sleep before we feel the effects of sleep deprivation. Even losing an hour or two a night will have an impact.

Why are we not getting enough sleep?

While the amount of sleep required does differ from person to person, in general adults require seven and a half to eight hours of sleep a night. An evaluation of sleep habits of Australians found that difficulties initiating and maintaining sleep, inadequate sleep, daytime fatigue, sleepiness and irritability are experienced by between 20-35% of people.

Interestingly, these difficulties were more common among women, with the exception of snoring. In addition to the impact of life stages (see previous section) it seems our busy lives are disrupting our sleep. Some of the contributing factors are:

- Later dinners - Digesting food actually requires a great deal of energy. If you eat too close to your bedtime, especially if the meal is a heavy one, it can interfere with your sleep.
- Screen time - Many people use the time before bed to answer emails, catch up on social media or watch TV. With the popularity of smart phones, laptops and tablets people are increasingly doing these activities in their bedroom. While some of these tasks might feel relaxing the light emitting screens used by these devices interferes with the production of melatonin, a sleep-producing hormone.
- Taking work home - Many people are extending their work day by completing work tasks at home. In addition to using a lit computer screen, working at home interferes with the winding down time that we need to go off to sleep successfully. If the work that people are carrying out is stressful or thought provoking it can be very difficult to switch off when retiring to bed.
- Alcohol - Women sometimes have a glass or two of wine with dinner to relax after a long day. While drinking alcohol before bedtime can result in drowsiness and going off to sleep easily, if people drink too much alcohol they will awaken a few hours later and experience difficulty getting back to sleep. Overall alcohol interferes with the quality of a person’s sleep.
- Late exercise - Generally exercise is good for improving our sleep, particularly if conducted outdoors. However, exercising too close to bedtime can actually be detrimental. When we exercise we raise our body’s core temperature which makes it difficult to go to sleep. So hitting the gym or going for a run too late in the day can actually make it harder to sleep.
- Caffeine - It seems obvious that having a coffee after dinner will keep you awake. What people often don’t know is that the stimulating effects of caffeine are quite long-lasting. For many people even their late afternoon pick-me-up of coffee, tea, cola or chocolate could still be impacting on their sleep.

Tips for a good night’s sleep

- Set a regular sleep schedule, same bed and wake-up time (even on weekends)
- Avoid eating dinners too late and/or heavy dinners
- Avoid the use of light-emitting devices too close to bedtime
- Sleep in a darkened room (including covering lights from electronic devices)
- Sleep in a cool room (18˚C)
- Avoid alcohol, caffeine or exercise too close to bedtime
- Avoid drinking too much liquid before bedtime (and, therefore, toilet trips)
- Quit smoking (nicotine is a stimulant)
- Regular exercise (but not too close to bedtime)
- Limit daytime naps, 10-30 minutes maximum (unless you’re a new mum in which case get as much daytime sleep as you can)
- Pregnant women can try using a special pregnancy support pillow
- New mums should lie down when they put baby down. Even if they don’t sleep the rest time is restorative.

When to seek help?

For some people their sleep can be improved by better sleep habits but others may have an underlying sleep disorder. People should consult a doctor if they regularly experience sleeping difficulties, if they find they struggle to keep awake during the day or if they feel their concentration, memory or emotions are impacted. Common sleep disorders include insomnia, sleep apnea and restless legs syndrome.

For more information

Sleep Health Foundation
www.sleephealthfoundation.org.au
Kirsten Braun
Travel in pregnancy

Whether travelling for work, a destination wedding or a babymoon, pregnant women should consider these factors before packing their bags.

Travel vaccinations
Many destinations, particularly in the developing world require travel vaccinations. Some vaccines (hepatitis A, hepatitis B, tetanus, diphtheria and pertussis) are safe and recommended for pregnant women who are travelling to places where they are at risk. However, the majority of live-virus vaccines (measles, mumps, rubella, chickenpox) are not recommended for pregnant women as they are not considered safe for the unborn child. Pregnant women should discuss their travel destinations with their doctor to determine what vaccines might be suitable.

Airline policies
Airlines have restrictions for pregnant women based on: week of pregnancy; single or multiple pregnancy; length of flight and if there are any existing pregnancy complications. Different airlines have different policies so it is important to check all airlines used in a travel itinerary. Many airlines require a certificate or letter from a registered medical practitioner/midwife if you are 28 weeks or more pregnant. The certificate/letter confirms the estimated date of delivery and that there are no complications with the pregnancy.

Using Qantas as an example, if the flight is less than four hours a woman with no complications can travel up to the end of the 40th week (single pregnancy) or the end of the 36th week (multiple pregnancy). If the flight is four hours or more a woman with no complications can travel up to the end of the 36th week (single pregnancy) or end of the 32nd week (multiple pregnancy).

Pregnant women have a higher risk of developing deep vein thrombosis (DVT) while flying. Women can reduce their risk by drinking plenty of water during the flight, using foot rests if available and doing in-flight exercises. Compression stockings may be recommended for longer flights.

Travel insurance
Pregnant women should check that they have adequate travel and health insurance in place before travelling. Many policies consider pregnancy a pre-existing condition and so will not provide cover for pregnancy-related complications while others provide cover only until a certain week of the pregnancy. Policies that do cover unexpected complications in pregnancy may not cover childbirth or any medical care of the unborn baby. If a woman gave birth prematurely, for example, the birthing expenses and care of the newborn would not be covered which could be extremely costly. As well as checking that the policy covers the right circumstances the monetary value of the policy cover should also be confirmed as medical costs in countries like the United States are particularly expensive.

Eating and drinking
Women are more vulnerable to contracting food and water borne illnesses during pregnancy. Travellers’ diarrhoea, while a nuisance for the average traveller, can be dangerous for a pregnant woman and her baby due to the associated dehydration. Similarly, bacterial infections like listeria or salmonella can harm the unborn baby. Pregnant women need to take extra care with what they eat and drink if traveling where food and water borne illnesses are present. Precautions include only drinking bottled water or boiled and cooled water, using bottled water to brush teeth and avoiding ice in drinks, salads and uncooked fruit and vegetables. If a pregnant woman develops travellers’ diarrhoea she should see a doctor as soon as possible as many of the common diarrhoea relief medications are not considered safe to take during pregnancy.

Malaria
As with food and water borne illnesses, pregnant women are also more susceptible to contracting malaria. It appears that mosquitoes are more attracted to pregnant women and pregnancy reduces a woman’s immunity to the disease. If a pregnant woman contracts malaria it increases her risk of miscarriage, stillbirth and premature birth. Women should discuss with their doctor the risk of malaria at their travel destination and whether anti-malarial medications are required. Not all anti-malarial medications are recommended for use by pregnant women.

Local medical care standards
In many developing countries or even the more remote regions of Australia, the medical facilities will not be the same as those in a developed country or metropolitan city. If a pregnancy complication occurs there may be limited support at the local hospital. In developing countries basic facilities might also mean there is a greater risk of infection, including blood borne viruses like hepatitis C and HIV. Women should ask their doctor about where to go to if they require medical assistance for each destination in their travel itinerary.

Kirsten Braun
Exercise can reduce the chance of Type 2 diabetes in women with gestational diabetes

A recent study found that for women who developed diabetes during pregnancy (gestational diabetes) exercise could reduce their risk of subsequently developing Type 2 diabetes.

Women with gestational diabetes are either unable to produce enough insulin or unable to use insulin effectively. They have an increased risk of developing Type 2 diabetes and cardiovascular disease later in life.

Who was in the study?
The researchers looked at the data from 4554 women in the Nurses’ Health Study II who had a history of gestational diabetes. The women were followed up from 1991 to 2007. By the end of the study period, 635 women had developed Type 2 diabetes.

What were the findings?
The study looked at the risk of developing Type 2 diabetes compared to the amount of exercise women did. Television watching was also measured as a form of sedentary activity.

For women who exercised the least, around 19% developed diabetes later on. This was compared to about 9% of women who exercised the most. Increasing one’s activity level also protected women from developing Type 2 diabetes. Women who increased their exercise by 150 minutes a week had only 53% of the diabetes risk of women who didn’t change their activity levels after pregnancy.

What it means for women?
The findings demonstrate that women who suffered from gestational diabetes during pregnancy can do something to reduce their risk of developing Type 2 diabetes. Unfortunately for many women the birth of a baby often results in a reduction of exercise as the demands of a new baby take precedent. It is important, therefore, that women who experience gestational diabetes are made aware of their future risk of Type 2 diabetes and provided with advice on how they can reduce this risk.

Women’s Health’s Looking After You: A New Mum’s Guide to Feeling Great booklet, recognises the difficulties new mothers face in maintaining exercise. It provides a variety of tips on physical activity and healthy eating. For more information see http://goo.gl/9p6VKB

Get connected...

Sleep Cycle Alarm Clock
This app uses the accelerometer in your iPhone to monitor your movement during sleep to determine which sleep phase you are in. It then wakes you when you are in a lighter sleep phase. You can customise the wake-up window so that it is still within a time range that you need to get up by. The app also provides detailed sleep statistics and sleep graphs and a notes field where you can record events that have affected your sleep. Available for iPhone, iPad or iPod touch.
Cost: $1.29
itunes.apple.com/au/app/sleep-cycle-alarm-clock/id320606217?mt=8

Pelvic Floor First
This app is based on the Continence Foundation of Australia’s Pelvic Floor First website (pelvicfloorfirst.org.au). The customised workouts have been designed by a physiotherapist and fitness professional so you can enjoy the benefits of a full workout, knowing your pelvic floor muscles are being protected. There is a choice of three exercise programs of varying intensity, dependent on the user’s pelvic floor function. The programs include a wide range of exercises accompanied by instructional videos and audio within each level. Available for iPhone, iPad or iPod touch.
Cost: Free
itunes.apple.com/au/app/pelvic-floor-first/id757727900?mt=8
Q: I had a baby four months ago and have started back at the gym but I have been experiencing a small amount of bladder leakage which is embarrassing. I started wearing pads to the gym but want to know if things will improve?

A: Resuming exercise is important for new mums and provides numerous benefits but it can also trigger bladder leakage. It is estimated that up to 30% of women will experience some form of urinary incontinence after having a baby.

The most common form is stress incontinence, characterised by the loss of small amounts of urine during activities that increase abdominal pressure (sneezing, coughing or during physical exercise). At the gym you may notice it when you lift weights, do abdominal crunches or any activities that involve running or jumping.

Stress incontinence most often results from weakened pelvic floor muscles. During pregnancy, hormonal changes and the extra weight of the baby can weaken these muscles. In addition, they can also be weakened during childbirth, particularly if there is a prolonged second stage of labour, if the baby is bigger than 4kg or if instruments are used during delivery.

While common, urinary incontinence shouldn’t be accepted as a normal consequence of having a baby. In many cases it can be easily treated so you should visit your doctor and not just continue to rely on pads. The most common form of treatment is pelvic floor exercises which are designed to strengthen the pelvic floor muscles through actively tightening and lifting them at intervals. Many women benefit from seeing a physiotherapist with a special interest in the pelvic floor to help them perform the exercises properly.

A physiotherapist, your doctor or an exercise physiologist can all provide advice about which gym activities do not place extra stress on the pelvic floor. Using a stationary bike (but not a spin class), walking rather than running on a treadmill, modifying weight training with seated exercises and lighter weights, yoga and pilates classes are all ideal. See the Continence Foundation’s Pelvic Floor First website www.pelvicfloorfirst.org.au for more pelvic floor safe exercises and a free app.