
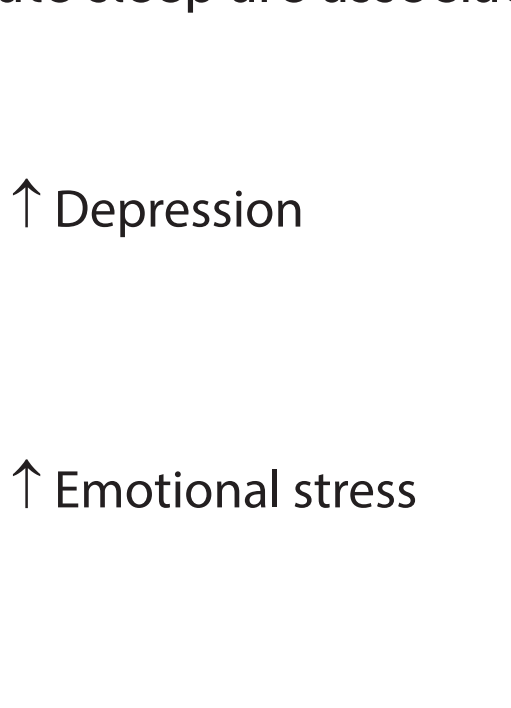


YOU DON'T THINK LACK OF SLEEP IMPACTS YOUR CHANCES OF TAKING HOME A HEALTHY BABY? THINK AGAIN!

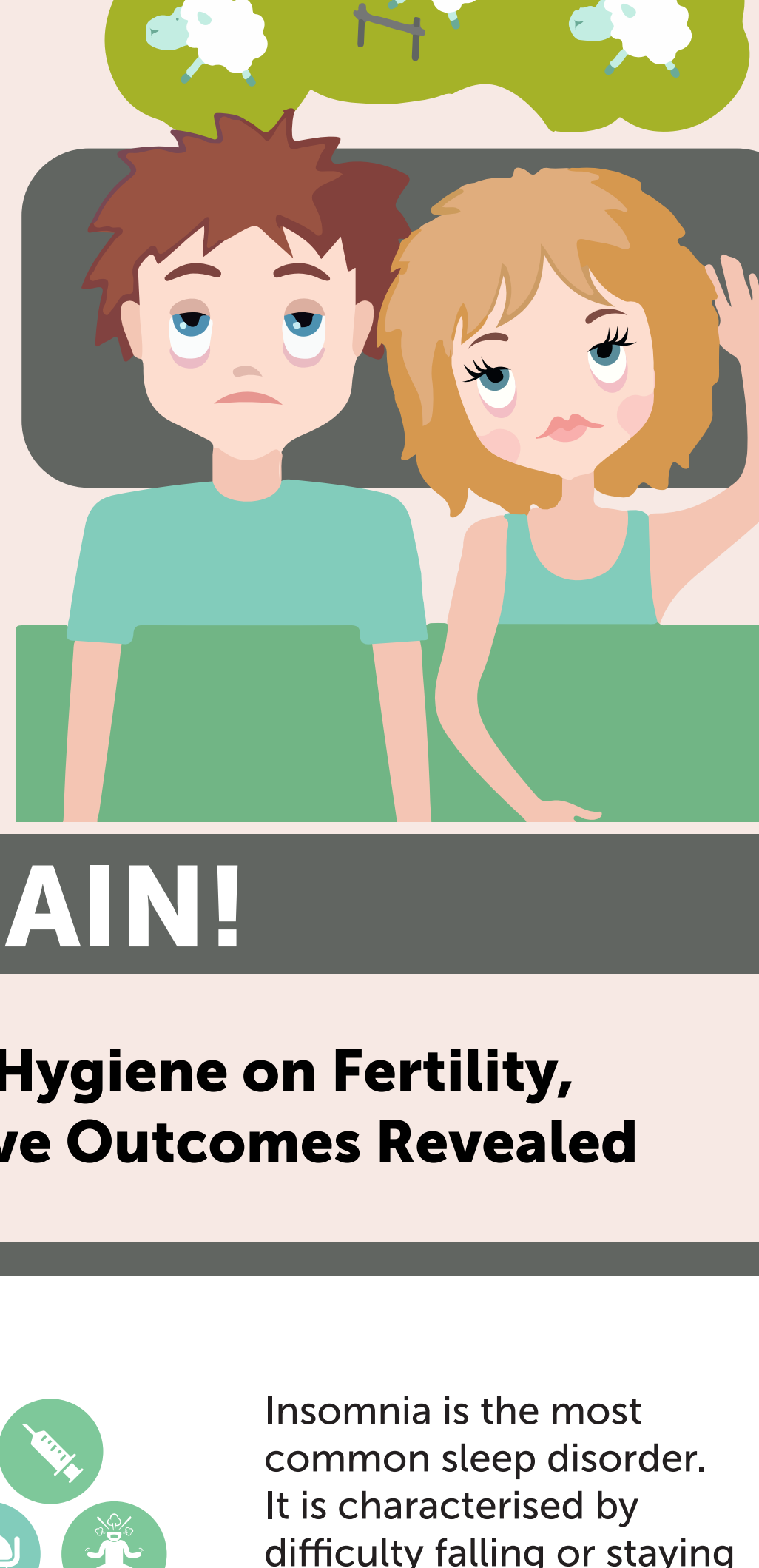
The Real Impact of Poor Sleep Hygiene on Fertility, Miscarriage Risk and Reproductive Outcomes Revealed



Sleep is a critical component to physical and emotional health and wellbeing.



Insomnia is the most common sleep disorder. It is characterised by difficulty falling or staying asleep. Inadequate sleep refers to short duration or unrefreshing sleep [1].



Insomnia and inadequate sleep are associated with [2-5]:

↓ Productivity

↑ Depression

↑ Insulin resistance

↓ Memory

↑ Emotional stress

Type 2 diabetes

↑ Aggression

↑ Weight gain

Heart disease

↑ Irritability

↑ Blood pressure

Kidney disease

↑ Anxiety

Sub-fertility

Due to busy lifestyles, most people don't make time for adequate, quality sleep. Rather than prioritising sleep and fitting daily tasks into what is left, the choice often becomes to prioritise tasks and fit sleep into the diminished remaining time. This faulty strategy dangerously affects an individual's health and fertility.



THE IMPACT OF POOR SLEEP HYGIENE ON MALE FERTILITY AND REPRODUCTIVE OUTCOMES

Sleep deficit negatively impacts hormonal levels and fertility [8].

Semen volume is even lower in overweight men who have difficulty falling asleep [8].

Men who lie awake most of the night have lower sperm motility [8].

20% of shift workers (those who work outside the hours of 6am-6pm) experience sleep disorders [9].

Inadequate sleep due to shift work also reduces male hormone levels and compromises the health of sperm [9].

Men who sleep less than 6.5 hours per night or more than 9 hours per night may have decreased semen volume and total number of sperm. Aiming for 7-8 hours of sleep per night may improve semen quality [10].

THE IMPACT OF POOR SLEEP HYGIENE ON FEMALE FERTILITY AND REPRODUCTIVE OUTCOMES

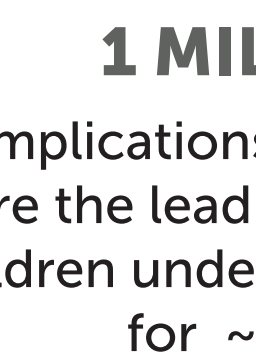
Inadequate sleep alters reproductive hormone levels causing irregular menstrual cycles [11].

The production of protective cytokines is hindered by inadequate sleep. This imbalance increases the risk of infection, inflammation and infertility [11].


Shift work disrupts the 'body clock', which causes ovulation problems thus increasing time to pregnancy [12].

~25% of pregnant women experience sleep disturbance in the first trimester [13].
By the third trimester ~75% of pregnant women experience sleep disturbance [13].

PROPER REST IN PREGNANCY IS ESSENTIAL!



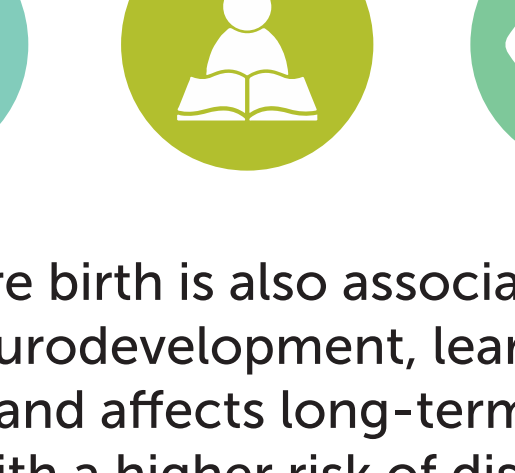
EARLY PREGNANCY **25%**



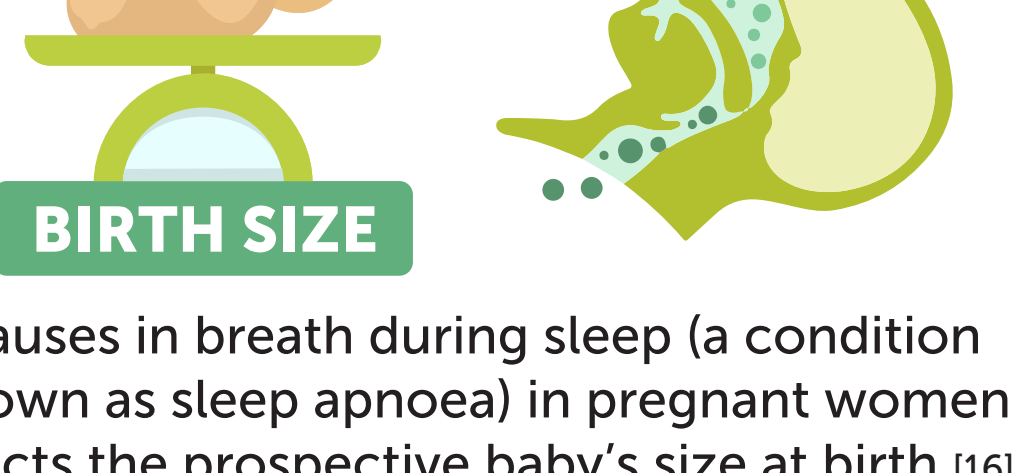
LATE PREGNANCY **18%**

The Pittsburgh Sleep Quality Index (PSQI) measures sleep quality, with higher scores indicating poorer quality. Every one-point increase on the PSQI increases the risk of premature birth by 25% in early pregnancy, and 18% in later pregnancy [13].

Being born prematurely increases the baby's risk of dying from multiple causes, including neonatal infection [14].

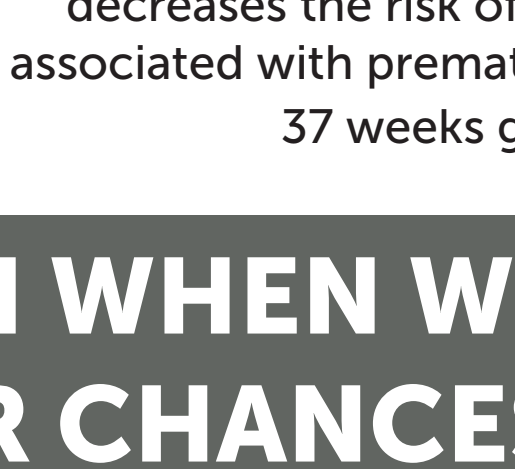


PREMATURE
1 MILLION DEATHS
Complications caused by premature birth are the leading cause of death among children under 5 years of age, responsible for ~1 million deaths [15].



15 MILLION BABIES
The World Health Organization states that more than 15 million babies are born prematurely each year. That is more than 1 in 10 babies [15].

Premature birth is also associated with impaired neurodevelopment, learning, visual disorders and affects long-term physical health with a higher risk of disease [14].



BIRTH SIZE
Pauses in breath during sleep (a condition known as sleep apnoea) in pregnant women affects the prospective baby's size at birth [16].

Giving birth to a small or large baby predisposes the child to birth defects involving the brain, heart, lungs, kidneys or digestive tract [16].



37 Weeks
Hence why plentiful rest during pregnancy is vital to offset inadequate sleep, which disrupts normal hormonal and immunological processes and decreases the risk of various complications associated with premature birth (delivery before 37 weeks gestation) [13].

VITAL CONSIDERATION WHEN WORKING TO OPTIMISE YOUR CHANCES OF TAKING HOME A HEALTHY BABY



Unfortunately, the number one issue that keeps couples stuck on their journey to parenthood, without getting there anytime fast is that they "don't know what they don't know".



Whenever someone says "I've tried everything" it is a sure fire clue they have exhausted the end of what they knew could help them and they have arrived in the land of "I don't know what I don't know".



The trouble of staying in this place too long is that it can result in no baby.



Overcoming infertility and recurrent pregnancy loss is a task you are very unlikely to be able to accomplish on your own.

SCIENTIFICALLY VALIDATED SELF-CARE RECOMMENDATIONS

Fertility is a team sport. Male infertility has a 50% impact on the increased risk of miscarriage and adverse pregnancy outcomes [17].

Hence why it is essential for both prospective parents to optimise their health prior to a conception attempt, and why not doing so could mean the difference between having a baby or not.

Here are some suggestions you and your partner can begin implementing now.

For optimum fertility, aim for 8 hours of sleep each night. This generally translates to 9 hours in bed [18, 19].

Avoid caffeine, alcohol and before-bed snacks as these disrupt sleep homeostasis, affecting sleep quality [20-22].

Create an environment that is dark, quiet, clean, comfortable and conducive to restorative sleep. This includes switching off the television, computer and any other device at least 1 hour (preferably 2-3 hours) before bedtime. The bright light exposure has been shown to delay sleep onset by suppressing the natural production of melatonin [23, 24].

Melatonin is a hormone that is not only important for peaceful and restful sleep, it also plays a major role in fertility by improving egg and sperm quality [25, 26].



Rather than using your computer or any other device before bed, read a book, journal or listen to guided meditations or visualisations.

Go to bed as early as possible. Our systems, particularly the adrenal glands, do a majority of their "recharging" during the hours of 11pm and 1am. During this same period, your gallbladder dumps toxins and begins self-cleaning. If you are awake, the toxins back up into the liver, which then secondarily back up into your entire system and cause further disruption to your health and fertility [27].

You may benefit from wearing comfortable bed clothes and socks to bed. The feet have the poorest circulation, and often feel cold before the rest of the body. Wearing socks may improve sleep quality and reduce night wakings [28].

Irrespective of the length of time you slept during the night, wake at the same time each morning (preferably 5am) as this helps to reset your sleep cycle and creates a healthy sleep routine [29].

Exercise throughout the day so that you are physically "tired out" at night. Mornings are the best time to exercise, followed by lunchtime. Avoid exercise at least 6 hours before bed in the evening as later physical activity has an awakening effect [29].