

## **SHIFT WORK -Whether Bad or Less Bad and How to Cope**

### **Your Internal Body Clock**

It is widely recognised that there is no such thing as a good shift pattern, only less bad ones. Human beings are simply not designed to be active through the night. The internal body clock (circadian clock) is responsible for this. It causes a regular variation through 24 hours of body temperature, heart rate, blood pressure, respiration rate and hormone production.

The body never adjusts to the sleep/wake cycle imposed by shift work, even after extended periods. However, some partial adjustment may occur over successive shifts, but reversion to normal patterns usually occurs on days off.

### **The Effects Of Disruption**

The effects of problems associated with shift work are well documented and are experienced in a number of ways, including:-

- Direct disruption to the body clock and physiological process, including the sleep/wake cycle. Chronic sleep disorders affect 60-80% of all shift workers.
- The direct impairment of physical health and psychological well-being, eg stomach disorders, are 4-5 times more likely.
- The disruption to social and family life. Divorce rates are higher amongst shift workers.
- Increased tiredness and chronic fatigue. Mood swings and depression are 5-15 times more likely. People mistakenly attribute this fatigue to being out of shape or getting older. For many it becomes the norm and they generally lack the energy for day-to-day living.
- Performance impairments (including increased potential for serious accidents).
- Increased absence due to ill health.
- Smoking is more common in shift workers.
- Excessive alcohol consumption is more common in shift workers.

## Getting Older

The effects of ageing and physical fitness on shift work tolerance are also recognised. The older one gets the less tolerant your body becomes to cope with shifts, particularly night shifts. Shift workers over 40-45 years of age tend to sleep worse after night shifts but not after morning shifts. This is probably related to changes in the body's circadian rhythm.

However, it is important to bear in mind that although there are many downsides to shift work, it is not all negative and many people find shift work offers advantages in the way they wish to run their lives.

## Lessening The Damage

So how can we lessen the damaging effects of shift work and best make use of the advantages that it has to offer?

The first important issue is to ensure that the shift pattern worked is the least damaging in terms of health, in particular the especially damaging night shift. The body circadian rhythm runs on average at a 25 hour cycle rather than 24 hours. This reflects in why people tend to find it easier to stay up later at weekends and suffer from the phenomena of "Monday morning blues".

Therefore, any shift pattern introduced should work with the body clock and not against it. That is, the shift pattern should be forward rotating; Mornings, Lates and then Nights.

## Making Adjustments At Work

Whilst the human body can never become nocturnal, it can make some adjustments to accommodate night shifts. However, the average human body is slow to make such adjustments, usually taking on average 6-7 days. Therefore, during the week, as the body adjusts, a sizeable sleep debt is accumulated. Research suggests that in terms of long-term health the best way to work night shifts is either in short spells – the shorter the better – or in long stretches of over one month. If night shifts are worked in short spells the accumulated sleep debt is reduced and recovery from nights to a normal living pattern is far quicker.

If nights are worked over a long period then the sleep/wake pattern adjusts to the night work and again the sleep debt is reduced, provided that you maintain a consistent sleep schedule on work days as well as on days off.

## Making Adjustments At Home

Adjustments to your lifestyle are also important. Sit down with your family and friends and discuss with them how the demands of shift work affect you and also how it affects them. Try to plan a routine that allows you sufficient rest to recover from work schedules whilst maintaining quality time with your family and friends.

Adjust your sleep patterns to cope with nights. For example, consider splitting your sleep periods into two that butt end either side of your normal sleep period. For example, sleep from 8.00am to 1.00pm, but then force yourself to get up. Sleep again say from 6.00pm to 9.00pm. By sleeping at least up to 30 minutes just before going to work on the night shift you will find it much easier to stay awake and alert. When finishing nights by splitting the sleep period in this manner you will find it much easier to return to a normal sleep pattern.



## **Change Your Eating Habits**

Also recognise that your stomach and digestive system is at rest during the night shift and adjust your eating habits accordingly. There are some general rules to follow. These are:-

- Try to eat one meal with your family each day;
- Start your day with high protein foods and gradually shift to carbohydrates as bedtime approaches;
- Avoid meals high in protein and fat within several hours of bedtime. This includes fatty, fried or spicy and rich foods;
- Avoid food and beverages containing caffeine within four hours of bedtime. Also avoid alcohol near bedtime;
- Have a light snack before going to bed. Although a full stomach can disturb sleep, so can hunger. Choose from carbohydrates such as cereal, bread or light milk based products.

## **Does Fitness Training Help?**

Physical fitness also affects how well you cope with shifts, although there is no evidence that fitness will speed up your circadian adjustment to night work. Regular aerobic exercise will boost your energy levels and stamina and increase your alertness.

Try to exercise as soon as you get up after sleeping as exercise raises body temperature and so can help you feel more awake. Do not exercise within one to two hours of bedtime as this will raise your metabolic rate for several hours and can make falling asleep more difficult.

