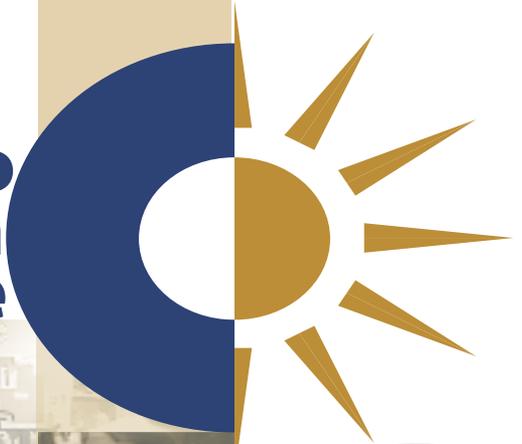




# Shifting to Wellness in Healthcare





## The Purpose of this Booklet

This booklet accompanies the ***Shifting To Wellness in Healthcare*** video/DVD and workshops. It is designed to present the many options available to support a healthy lifestyle for shiftworkers.

### This booklet:

- summarizes the key information from the video/DVD;
- provides a quick guide for future reference;
- offers suggestions to prepare for working shiftwork;
- contains strategies on how to change your lifestyle and habits when working shifts;
- provides discussion questions to engage family/partner or friends in conversations about shiftwork.

We suggest that you keep this book with you at home or at the workplace as a handy reference to help you ***Shift to Wellness***.

### Acknowledgements

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## Table of Contents

Purpose	2
Table of Contents	3
Introduction	4
What is Shiftwork?	5
Circadian Rhythm and Sleep	7
Fatigue and Safety	9
Consequences of Fatigue	10
Strategies for Managing Nightshift Fatigue	11
Types of Stress	13
What Happens to the Body under Stress?	14
Strategies to Manage Stress	15
Managing Personal Change	17
Strategies to Support Change	18
S.M.A.R.T. Goals	19
Healthy Eating for Shiftworkers	20
Healthy Eating Strategies for Shiftworkers	21
Active Living	22
Websites for Information Resources	24

## Introduction



The work environment in healthcare is constantly changing. Workloads — and stress levels — are increasing. As a healthcare worker you know that the public relies on us to provide the very best care 24 hours a day. That means many healthcare workers may find themselves working during late evening and early morning hours to provide that care.

Research has shown that working evening or nightshifts can impact a worker's performance physically, psychologically and mentally. It can lead to excessive fatigue, increased stress and personal or family problems — all of which can contribute to more accidents in the workplace or at home.

As a healthcare worker it is common for you to tend to the needs of others before your own needs. We now recognize that if we don't care for ourselves we won't be able to care for others.

Shiftwork requires adjustments to how we sleep and eat — and in our family and social life. We can all **shift to wellness** with the right information and skills needed to reduce the impact of shiftwork on our lives so that we can better fulfill our roles as healthcare workers and family members.

## What is Shiftwork?



### Definition:

The term **shiftwork** usually refers to work performed outside the regular work hours of 8:00 am to 5:00 pm, Monday to Friday.

### In healthcare there are many kinds of work shifts:

nightshifts, rotating shifts, split shifts, on-call shifts, extended work days and irregular shifts.

### Issues surrounding shiftwork:

Different shift schedules affect people differently.

### Shiftwork can contribute to:

fatigue, poor job satisfaction, absenteeism and risk of accidents due to poor performance or unexpected periods of sleep in the workplace. It may affect the physical, emotional, mental and/or spiritual areas of our life.

### Physical:

- Higher risk of heart disease
- Digestive problems
- Increased risk of diabetes
- Fatigue
- Eye strain
- Headaches
- Age (Some workers may find their tolerance to working shiftwork changes as they age.)
- Sex (Shiftwork can affect men and women differently. For example: men may sleep better than women. Women may also suffer more from drowsiness at work, digestive complaints, circulatory problems and chronic fatigue as well as pregnancy troubles.)



### Emotional:

- Feeling overwhelmed
- Feeling guilt
- Feeling sorry for oneself
- Social/family problems
- Irritability and moodiness



### Mental:

- Depression
- Fatigue can affect decision making, reasoning, creative thinking, judgement and memory.
- People who have a positive attitude towards life seem to manage shiftwork better.

### Spiritual/Cultural:

- Lack of time to meditate, pray or reflect
- Missing spiritual rituals, events and ceremonies
- Can affect our feeling of being connected, sense of purpose and meaning in life
- Workers carry their cultural values in to their work places.
- Workers can miss time for praying together with their communities or miss attending social meetings.

It has been shown that healthy lifestyle choices can alleviate many of these issues surrounding shiftwork. Proper nutrition, exercise, management of stress, time and sleep, and family involvement can all lessen the effects of shiftwork on our working lives.



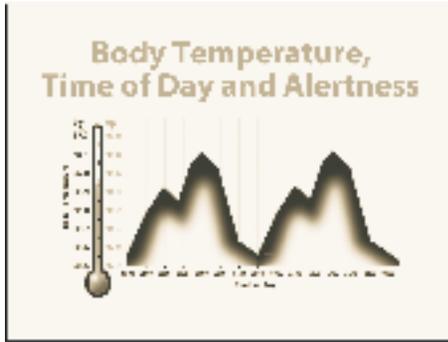
## Circadian Rhythm and Sleep



**Circadian rhythms** act as the body clock (24 hour) or the circadian pacemaker. They are daily variations in bodily functions that have resulted from historical and developmental body functioning. We are **hard wired** to function in these programmed cycles.

Every day our biological clocks are reset by environmental cues such as light and dark, clock time, mealtime — and social cues like public events or family activities. When a shiftworker is on nightshift, the body begins to drift out of day orientation on the second consecutive nightshift. The body needs time to re-synchronize and recover after nightshifts. This repeated stress on the body can lead to an increase in physical and emotional problems.

Alertness decreases when metabolism, temperature, heart rate, gastro-intestinal and kidney function slow down.



One of the most important elements in understanding of circadian rhythms is **the dip**. Between 3 am and 6 am is a notable **lowering of body temperature** and a significant **slowing of heart rate**. Symptoms = coldness + tiredness.

As body temperature drops, so does our alertness level.

**Gastro-intestinal function** decreases during **the dip**.

**The dip** = decreased gastric emptying, glucose tolerance, decreased levels of digestive enzymes and peristalsis in the gut. Symptoms = indigestion; therefore, the need to eat light and less.

The decrease of heart rate and digestion slow down to prepare the body for sleep.

Note: **Post lunch dip** between 1:30 pm and 3:00 pm has similar effects on the circadian rhythms but not as pronounced as night time hours.



## Fatigue and Safety (Both on and off the job)

**Q:** *When was the last time you woke up from a good night's sleep feeling refreshed, rested and ready for the day?*

25% of Canadian adults report they do not normally sleep well.

- Job safety and performance rely on maintaining alertness and preventing fatigue.
- Without the proper quality and quantity of sleep, it may be difficult to remain alert on the job.



### Sleep Debt

- Sleep debt occurs when you continually lose sleep.
- **Catch-up** will only work if it happens close to the time the debt was incurred (not once a week, month, year). The debt requires more frequent installments.

### Fatigue

- Fatigue results from sleep loss, continuous hours of being awake or disrupted circadian rhythms
- Fatigue effects are the same as having an impaired blood alcohol level (after 24 hours of being awake, performance is similar to that of a person with a blood alcohol level of .10 % – current legal alcohol level is .08%).
- Fatigue affects decision making, reasoning, creative thinking, judgement, memory and mood.



## Consequences of Fatigue

Ongoing fatigue puts shiftworkers at risk for sleep lapses.

**Q:** *Think of how any of the below would impact your ability to provide safe patient care or drive home from work.*

- 1. Micro-sleeps** — last several seconds to several minutes. Example: nods off without warning. There is no mental or physical functions during the micro-sleep.
- 2. Nightshift paralysis** — body becomes frozen for a short period of time, but consciousness is not lost. Example: stare at an object and appear not to move.
- 3. Automatic behavior** — body functions in a robot-like state — automatic pilot. Physical location, monitors, or some aspect of the environment changes to alert the person. The brain has shut down parts of it's operation for an emergency rest.



## Strategies for Managing Nightshift Fatigue

- Self-awareness — key to managing fatigue and the first step to prepare, survive and recover from the nightshift.
- Tune into your own signs of lagging consciousness or inattentiveness. Respond to the signs.

**Q:** *How do you know you are tired? What are the key symptoms for you? (slower calculating, decreased concentration)*



### Prepare for the nightshift:

- Build a successful normal sleep routine
- Get extra sleep before working the first nightshift
- Take a two hour afternoon nap before coming on duty.

### Survive the nightshift:

- Prioritize work activities — organize work to ensure the tasks requiring your best attention are done early in the shift when you are most alert.
- Change the pace of your work to enhance alertness and attentiveness.
- Environmental stimuli — music, interact with co-workers, increase lighting at work-station. Laughter — *nobody falls asleep laughing* — energizes and decreases tired feelings.
- Change temperature — add or remove items of clothing to maintain a consistent body temperature. Remember the metabolism and body temperature decrease on nights as per circadian rhythm.
- Physical activity — change physical position at least every 30 minutes. This will help change energy levels.



- Water intake — water is important in maintaining alertness. Increased water intake will stimulate kidneys and urinary tract.
- Healthy eating choices — eat light, eat less. Use caffeine cautiously, if at all, as it is a stimulant. The effects of one cup of coffee can be felt in as little as 20 minutes and may last as long as 6-8 hours.
- Napping — Napping can be an effective counter-balance to fatigue. Power naps of 20-30 minutes help maintain or improve performance, alertness and mood. Napping can be used to top off the main sleep period. Napping for greater than 30 minutes can put you at risk for sleep inertia. Sleep inertia is the feeling of sleepiness, grogginess and confusion that can follow after waking from a deep sleep. It usually disappears within 15 minutes. This can cause a problem if right after or during the nap there is an emergency that requires immediate response. Napping practices must ensure the timing allows time for an employee to be sufficiently alert before resuming duties.



### Recover from the nightshift:

- Driving home — use strategies to stay awake/alert (window down, engaging music or talkshow, carpool when possible.)
- Eat a light breakfast after your shift.
- Go to sleep as soon as possible after work.
- Maintain sleep routines.
- Decrease environmental stimuli — cool room temperature, wear earplugs if necessary to decrease the noise, black-out curtains or eye-shades.

## Managing Stress

### Types of Stress

#### 1. Eustress

- Good Stress
- It can motivate and increase productivity and satisfaction.
- It is positive, preparing us to handle unfamiliar situations or solve problems.

#### 2. Distress

- When stress is poorly managed or allowed to get out of control, stress becomes a negative.
- Distress is when our stress levels are constantly high.
- We are not getting any break from the stress.

The primitive nature of the body's response to stress is called the **fight or flight** response. It is meant to provide increased energy, strength, speed, vision and hearing for physical protection. Most modern day stressors are mental and do not require the **fight or flight** response. As a result, stress can accumulate over time, leading to severe chronic stress and creating illness.



Initially, the effects of chronic stress are less visible. Intense periods can be accompanied by physical symptoms such as gastrointestinal problems and headaches. The body organs responsible for the stress response are also affected. It can suppress the immune system, affect sleep, appetite, sexual interest and cause or worsen many illnesses.



## What Happens to the Body under Stress?

### Managing Stress is a Four Step Process

- 1. Recognize the signs and symptoms.**
  - Emotional (fatigue, moodiness, anger)
  - Behavioural (skipping meals / over-eating, substance abuse, change in sleep patterns)
  - Physical (headaches, tight neck and shoulders, gastrointestinal problems)
- 2. Identify the causes.**
  - What causes you stress during work hours?
  - What causes you stress during non-work hours?
- 3. Learn the strategies** (refer to page 15).
  - Choose healthy strategies to manage stress.
- 4. Apply strategies to manage stress in both your work and personal life.**



## Strategies to Manage Stress

### Nutrition:

- Follow Canada's Food Guide to Healthy Eating.
- Avoid increasing your intake of sugar and caffeine (coffee, chocolate).

### Rest and Sleep:

- A good night's sleep will help shiftworkers be refreshed, alert and will help relieve the tensions of the shift.
- Caffeine, nicotine and alcohol interfere with sleep.

### Exercise and Lifestyle:

- Physically fit people are better able to handle stress.
- Exercise is a natural outlet for releasing the energy which stems from the stress response.

**Q:** *Where do you feel stress in your body? (stomach, chest, headaches, tight shoulders)*

### The Relaxation Response:

- Relaxation is a strategy to reduce the physical effects of stress.
- Relaxation techniques will result in clearer thinking, less body tension and feeling calm and in control.





**Q:** *What do you do to relax?*

**Choose Your Response:**

- You can fight, or, you can flight, you can compromise, bargain, negotiate or cooperate — it is your choice.
- Don't get caught up in responses that are destructive to you.

**Avoid the Chemical Haze:**

- Alcohol, tranquilizers, cigarettes, coffee — all of these may help for a short period, but they all have negative side effects and make stress worse over the long haul.

**Pay Attention to Your Body:**

- Headaches, muscle aches, indigestion, teeth grinding, fist clenching, unexplained pain are all important to you — your body is trying to tell you to deal with the stress in your work and life.

**Ask for Help and Support:**

- Share your concerns with family, a friend, supervisor if work related or seek professional advice (Employee and Family assistance program).
- You need to learn to say **No**. Being home during daylight hours does not mean that you have time to take on extra jobs.

**Time Management:**

- Time is a resource that must be divided to meet our many needs. Make sure you are spending time, money and energy on the important things — **your life**.



## Managing Personal Change

If you are a healthcare shiftworker you will need to make behaviour and lifestyle changes to meet the demands of your job and maintain your physical and mental health. Your ability to make changes to sleep patterns, exercise, diet and family life will vary depending on your age, family supports, personal values and attitudes, skill levels, access to resources and... **your readiness to change**.

These kind of lifestyle changes involve a continuous learning process, not an all or nothing event.

**Q:** *Thinking back to the last time you tried to change a behaviour (prepare healthier meals, lose weight, stop smoking, start exercising) what were some of the barriers to this change?*





## Strategies to Support Change

1. Set realistic goals and planned outcomes. The most common reason people fail to make a change is because it was an unrealistic goal.
2. Communicate your goal. Tell others you intend to make a change.
3. Support — you may have to seek out support. For example: if your goal is to stop smoking you may have to find friends who are non-smokers to support you. Surround yourself with positive people who want to see you obtain your goal.
4. Positive attitude — example: dieting. Don't give up if you have a day where you eat all the wrong foods. You can always start the next day.
5. Patience — most changes are not going to happen over night.
6. Confidence — if your goal and steps to reach your goal are realistic, you should feel confident you can obtain your goal.



## S.M.A.R.T Goals

### Specific

You are much more likely to achieve a specific goal rather than a general goal.

### Measurable

When you measure your progress you stay on track and reach your goals. Example: *I will follow a walking schedule and measure my monthly distance.*

### Attainable

Your goals should be set by you rather than by someone else. You are the best judge of your strengths and weaknesses, and you can use this information to maximize your chances of success.

### Realistic

Success breeds success! A realistic goal is a goal you are both willing and able to achieve. It is better to be successful with a small goal rather than unsuccessful with a big (unrealistic) goal.

### Time frame

Establish a reasonable deadline for achieving your goal. Share your goals with people who will support your efforts and then celebrate your accomplishment.

Review your goals frequently. You may find that you achieve your goals faster than you thought and that you need to create new ones.



## Healthy Eating for Shiftworkers

Planning what and when to eat is one of the greatest challenges for shiftworkers. Shiftwork has been related to an increased incidence of digestive problems.

Researchers are examining the impact of abnormal sleep-wake cycles on the body's ability to digest, transport and use nutrients. During the night, the digestive system slows down, even if a person is alert and working a nightshift. As a result, the approach to nighttime eating is somewhat different from what would normally be followed during the day.

**Q:** *What are the effects of shiftwork on your eating patterns and digestion?*



### Effects

- Digestion is less active at night because the body functions slow down at night (as per circadian rhythms).
- A high carbohydrate diet (ie. high starch, high sugar) is not the best choice on nightshifts (energy fluctuations — may cause highs and lows).
- High fat /greasy meals or snacks will slow digestion at night which could result in drowsiness and slower reaction times and indigestion.

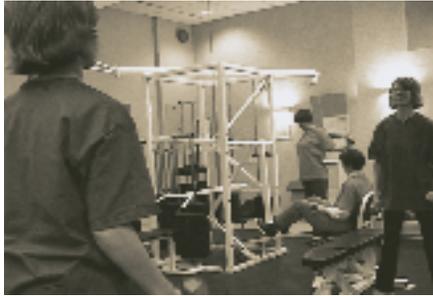


### Healthy Eating Strategies for Shiftworkers

1. For nightshifts, eat your main meal when you wake up or as early into the shift as possible.
2. Eat light eat less on nightshift.
3. Choose a wide variety of food each day from Canada's Food guide to Healthy Eating.
4. Reduce total fat intake to 30% of total calories or less. (avoid fried and fatty foods)
5. Limit caffeine intake. Moderate daily caffeine intake = 400-450 mg/day. Effects differ depending on age, body size, health and how the body processes it.
6. Reduce or eliminate alcohol and nicotine. They can interfere with the quantity and quality of sleep. You may quickly fall asleep but wake up many times during the sleep cycle.
7. Be aware of how you tolerate spicy foods. For some people, spicy foods can lead to indigestion.



## Active Living



Through active living, shiftworkers can achieve many health benefits. Physical activity can decrease the **tired feeling** caused by fatigue/sleep deprivation.

### Specific Benefits of Active Living for Shiftworkers

- Positive impact on sleep (improves quantity and quality of sleep)
- Improves alertness (both at work and at home)
- Able to adjust quicker to shift transitions.
- Reduces risk of injuries (back problems) or accidents due to increase endurance, strength and flexibility.
- Faster recovery time if you do sustain an injury
- Reduces incidents of illness
- Exercise enhances relaxation therefore reducing levels of anxiety, stress and depression.
- Improved mental alertness (focus and concentration)

**Q:** *Do you feel you need to increase your level of activity?*  
If so, **Goal for it with S.M.A.R.T goals** (See page 19.)



## Strategies for Improving Active Living

**Assess** — include the activities you are doing at work.

**Imagine** — options of active living and exercise are endless.

**Choose** a variety of activities that you enjoy. If you choose a time intensive activity like hockey, also choose some less time and financially demanding activities to complement that choice. Example: Walking, stretching, gardening.

**Goal for it** — studies show that individuals who set goals are more likely to achieve them. S.M.A.R.T. goals.

**Make a plan** — shiftworkers need to be creative in achieving their goals because of work schedules.

**Measure success** — diary, pedometer

### Quick Tips for Safe Active Living

- **Pace yourself** — remember that you are a human being and not a machine.
- Increase levels of activity gradually.
- Pain is a warning sign (listen to your body).
- **Wear appropriate clothing** — supportive footwear, safety gear (helmets, glasses) and appropriate layers of clothing
- **Hydrate** — by the time you feel thirsty, you are already dehydrated! Drink water before, during, and after activity to replace fluid loss from sweating.
- **Warm up/Cool down** — plan time to both warm up your body before an activity and cool yourself down after one. This decreases the risk of injury.

### References

Shifting to Wellness Trainer Manual, Keyano College, 2005

Shifting to Wellness in Healthcare, Vancouver Coastal Health, Providence Health Care and Keyano college, 2005



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## Websites for Information Resources

### Shifting to Wellness

[www.shiftingtowellness.ca](http://www.shiftingtowellness.ca)

### Canada's Guide to Healthy Eating and Physical Activity

[www.phac-aspc.gc.ca/guide/index\\_e.html](http://www.phac-aspc.gc.ca/guide/index_e.html)

### Canadian Heart and Stroke Foundation

[www.heartandstroke.ca](http://www.heartandstroke.ca)

### Canadian Mental Health Association

[www.cmha.ca](http://www.cmha.ca)

### Canadian Sleep Society

[www.css.to](http://www.css.to)

### Canadian Institute for Health Information

[www.cihi.ca](http://www.cihi.ca)

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