

## #Nightshift: How Nurses and Patients Can Adapt to the Dark

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### Objectives

- Explore the physical and physiological impact of nightshift on nurses and patients
- Provide resources to manage working nightshift as a nurse by identifying steps to improve work-life balance
- Discuss various approaches to support healthier environment for nightshift nurses and minimize risk to patients in the hospital environment
- Understand how patient care is impacted on nightshift

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### 20 Years and Counting....



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I have forgotten what it  
is like to have a normal  
sleeping pattern!



## What is Nightshift??

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Commodores- Nightshift

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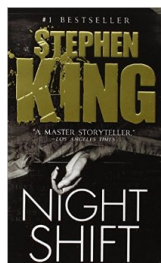
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Nightshift, a popular subject....



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#nocshift  
#nightshift  
#nights

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**What is Nightshift?**

- Estimated 15 million Americans work nightshift (Hall, 2015)
- Variety of shifts from on-call, evening to 'deep' nights
- For nursing, it is stereotypically where 'new' RN's work in a hospital, interns and/or new to the hospital or ICU
- Called the 'graveyard' shift still today

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Not knowing when to say "today" or "tomorrow" when it is after midnight!

**Our Patients**

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### Sleep Architecture

**NREM (Nonrapid Eye Movement)**

N1 'light sleep' entry into sleep from the waken state = 2-5% of sleep  
 N2 'mid sleep' 45-55% of sleep  
 N3 'deep sleep' 15-20% of sleep

**REM (Rapid Eye Movement)**

Occupies 20-25% of total sleep associated with being highly active including dreaming and perceptual learning

The diagram illustrates the stages of sleep architecture. It shows a cycle starting with Stage 1 (light sleep), moving to Stage 2 (mid sleep), then Stage 3 (deep sleep), and finally REM (Rapid Eye Movement). The cycle repeats every 90-120 minutes. Stage 1 is described as 'In stage 1 we experience a light transitional sleep. This is where drowsiness and sleep begin.' Stage 2 is described as 'In stage 2 more stable sleep occurs. Chemicals produced in the brain block the nerves making it difficult to be woken.' Stage 3 is described as 'Stage 3 is deep sleep. Growth hormone is released during this stage. Most stage 3 sleep occurs in the first third of the night.' REM is described as 'REM sleep resembles the monkey in this stage in very active in very high and rapid dreaming to sleep to occur.'

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### Sleep Disruptions in the ICU

- Ventilator Dysynchrony
- Medications
- Patient Care Interactions

A photograph showing a nurse in blue scrubs attending to a patient lying in a hospital bed. The patient is connected to various medical monitors and equipment, typical of an ICU setting.

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### Sleep Disruptions in the ICU

A golden, stylized figure of a person holding a megaphone, symbolizing noise or disruption.

- Environmental Noise and Light
- Family Visitation

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### Critical Illness and Sleep

- Central Nervous System
- Immune System
  - Hormonal or Metabolic Disturbances
- Respiratory System
- Digestive System
- CV System

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### What does lack of Sleep look like for our Patients?

- Loss of memory
- Delirium
- Hallucinations
- Balance and coordination issues
- Significant increased or decreased appetite
- Hypertension
- Irritability
- Decision-making capabilities
- Anxiety, flashbacks-PTSD
- Depression
- Hyperglycemia
- Hypoxemia

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### Patient Safety at Night

- Communication Norms
- Increase falls
- Harder to get a patient consult
- Busy time 3-11pm
- Nurse-Patient ratios/Staffing
- Patient transfers
- Timeliness of (procedures, medications, lab)

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**Patient Satisfaction**

**Table 1. Patient experience measures: Hospital Value based purchasing**

Measure	2014	2015	2016	2017
Communication and Support	4	4	4	4
Coordination and Continuity	4	4	4	4
Physical Environment	4	4	4	4
Access and Availability of Services	4	4	4	4
Communication and Support	4	4	4	4
Coordination and Continuity	4	4	4	4
Physical Environment	4	4	4	4
Access and Availability of Services	4	4	4	4

Source: Press Ganey, Inc. 2017. All rights reserved. 2017-2018. Press Ganey, Inc. 2017-2018. Press Ganey, Inc. 2017-2018. Press Ganey, Inc. 2017-2018.

**Patient Care Surveys**

- Quietness of environment
- Coordination of Care
- Patient-Centered

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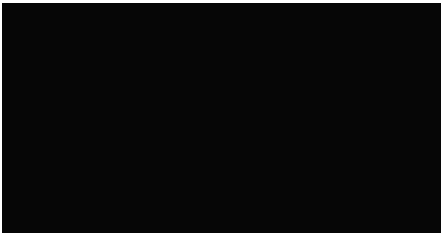
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**Delirium in Healthcare-Houston Gulf Coast Chapter**

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Nightshift is like Jet Lag without the benefit of traveling to another time zone!



**Nurses**

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### Stereotypes of Nightshift Nurses

- Nothing gets done
- Don't like visitors
- Don't like feeding or walking patients
- You are a nurse who needs a slower pace
- You enjoy waking people at night
- You don't like talking to physician's
- You don't like the sun
- You don't want to talk to anyone of authority/leadership
- JACHO does not apply to you

A meme featuring a woman in a yellow shirt with her arms outstretched. The text reads: "WHEN I START TO SEE THE NEXT SHIFT COMING IN".

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### Health Data for Nurses The Ugly Truth

- Increased risk for cardiovascular disease
- Associated with increased BMI
- Increased risk of lung cancer
- Shorten lifespan
- Disturbances in circadian rhythm

A photograph of a nurse in a blue uniform looking directly at the camera with a tired expression. In the background, a large clock is visible.

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### The Business of Sleep





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### Sleep Inertia Mirco Sleeps

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### Fatigue

Maggie's Law

- Illegal to knowingly drive while impaired by lack of sleep
- Establishes driving while fatigued as reckless under the vehicular homicide statute.



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## Fatigue

### We are all accountable!

- Sustained Wakefulness  
>24hrs awake = 2-3 drinks or 0.1% ETOH level
- Good Sleep Hygiene
- Intervene when a peer suffering or address concerns over fatigue in your unit



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### Can working nights be in your favor?

- Wage differential
- Easier with some school schedules
- Unwanted family situations (ie. holidays, guests)
- Best for 'night owls' who function better at night
- Family reasons/childcare
- Limited traffic into the city



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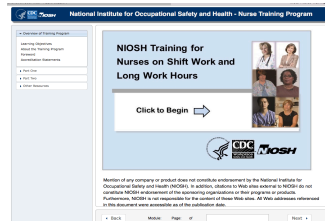
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## Resources for Nurses



- NIOSH Training for Nurses  
CDC Course Numbers are WB2408 and WB2409

<https://www.cdc.gov/niosh/work-hour-training-for-nurses/>

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- The brain benefits of deep sleep- and how to get more of it. (Dan Gartenberg)
- One more reason to get a good nights sleep. (Jeff Liff)
- The natural sleep cycle is nothing like we know now. (Jessa Gamble)
- Why do we sleep? (Russell Foster)



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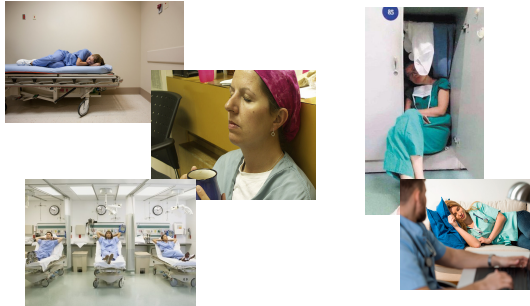
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#### Napping, is it OK?



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#### Viral Post-Nurse Napping



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### Things are a little different at night

- No Food
- Limited Admin for Higher Level Decision Needs
- Supplies
- Less Staff-Hands on Deck (ie. Unit Secretary)
- System Updates/Downtime procedures for EHR
- Lift Help-Transport Help minimal
- Social Work, Translators limited
- Physicians 'on call' unfamiliar with patient load
- Education typically during the day
- Meetings early AM (after 12hr shift)
- Committee work/Skill Check off during the day

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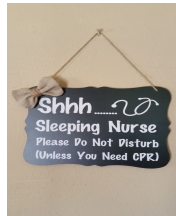
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### Tricks of the Trade

- Blackout blinds
- Wax ear plugs
- Sonic boom alarm clocks
- No bluelight before sleeping
- No spicy food before bed
- Good book on your nightstand
- FIT trackers
- No caffeine after 3-4am
- Light meal when you wake up
- Exercise
- Get in your PJ's




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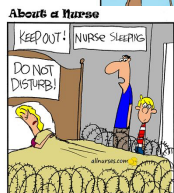
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"I was going to ask you how your change from day shift to night was going, but I think I can guess the answer."



"Judging by the barbed-wire and signs, your mom had a long shift and doesn't want to be disturbed."




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### Optimize at Night



- Advocate for change
- Seek out learning opportunities
- Find like-minded colleagues
- Stick with it
- Cast light on the world at night

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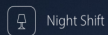
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### Protect sleep



Night Shift

A lot of waking hours went into thinking about sleep.

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*Thank You  
&  
Sleep Well!*



*Any Questions??*

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