

FATIGUE AWARENESS and Fitness for Duty

Tony Abdallah

New York City Transit

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Background

- In the early 90's NYCT commissioned research to determine if there was a correlation between hours worked and accidents.
 - At the time, the Rapid Transit Operations division was averaging 13.5 collision/derailment incidents per year and 23 system wide per year.
- Findings/Recommendations of the Study:
 - There was no correlation identified between hours worked and accidents.
 - Employees need 8 hours available for sleep each night in addition to commuting time.



Background

- In the past Train Operators, Conductors and Tower Operators worked scheduled shifts that were less than 10 hours per day.
- When overtime was required, operating employees were restricted to working not more than 16 hours a day, excluding time between assignments.
- Employees were restricted to working not more than 6 consecutive days (already in practice at NYCT at the time).



NYC Transit Rules

On September 1, 1996:

- Hours of service rules were revised limiting the number of hours worked to a maximum of 16, inclusive of any time between assignments.
- The restriction on the number of consecutive work days remained unchanged at 6 days.



NYC Transit Rules

Supervisors must monitor employees' unscheduled overtime greater than two hours and ascertain that the employee has a minimum of eight hours of off-duty time between tours.

Violations must be addressed and tracked.



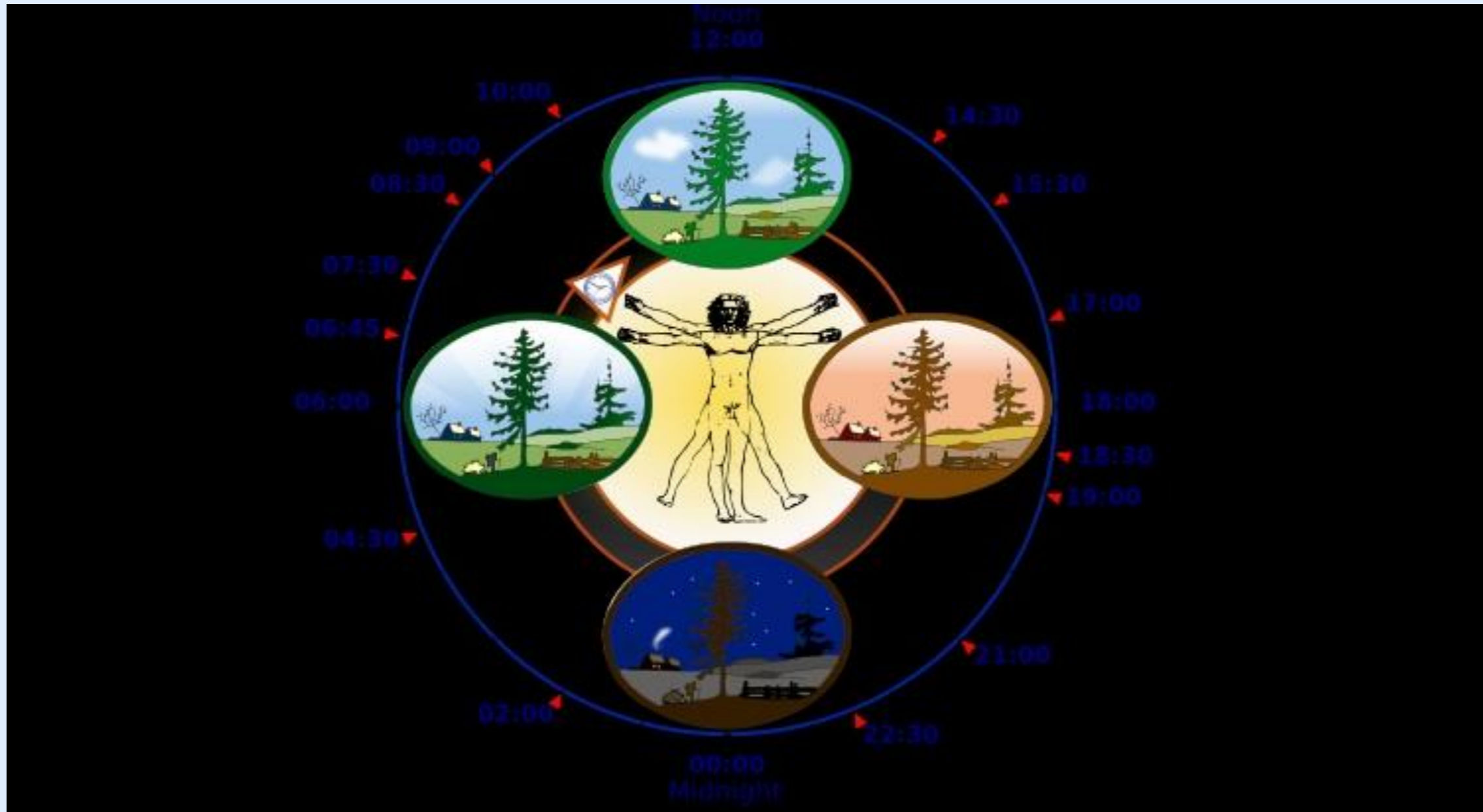
Fatigue Awareness Training

In October 1996 NYCT's Department of Subways developed a fitness for duty awareness training program:

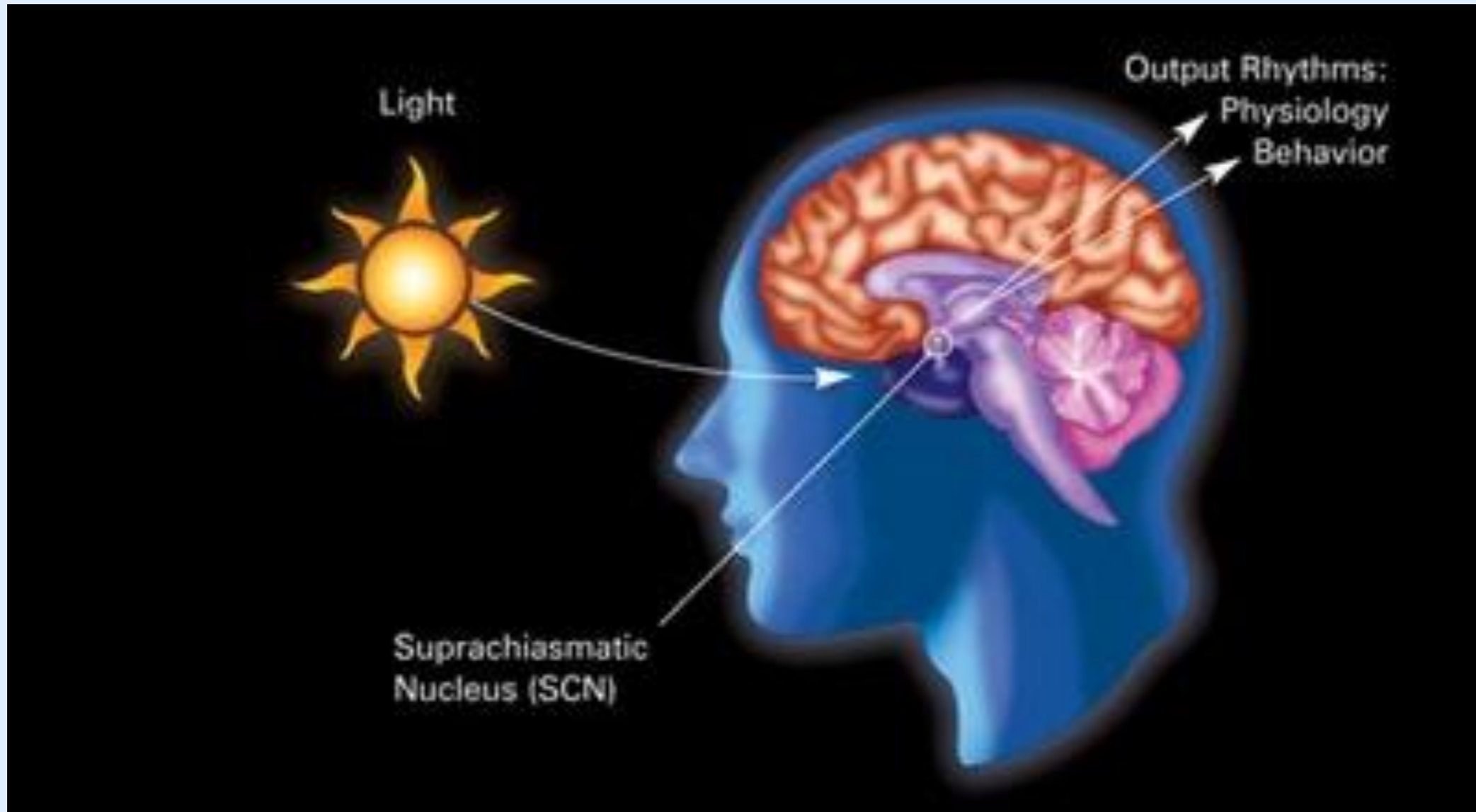
- Employees are educated on causes of fatigue as well as strategies to prevent it.
- Training was provided to all Train Service Employees.
- New Train Service employees receive this instruction upon hiring as part of their induction training.

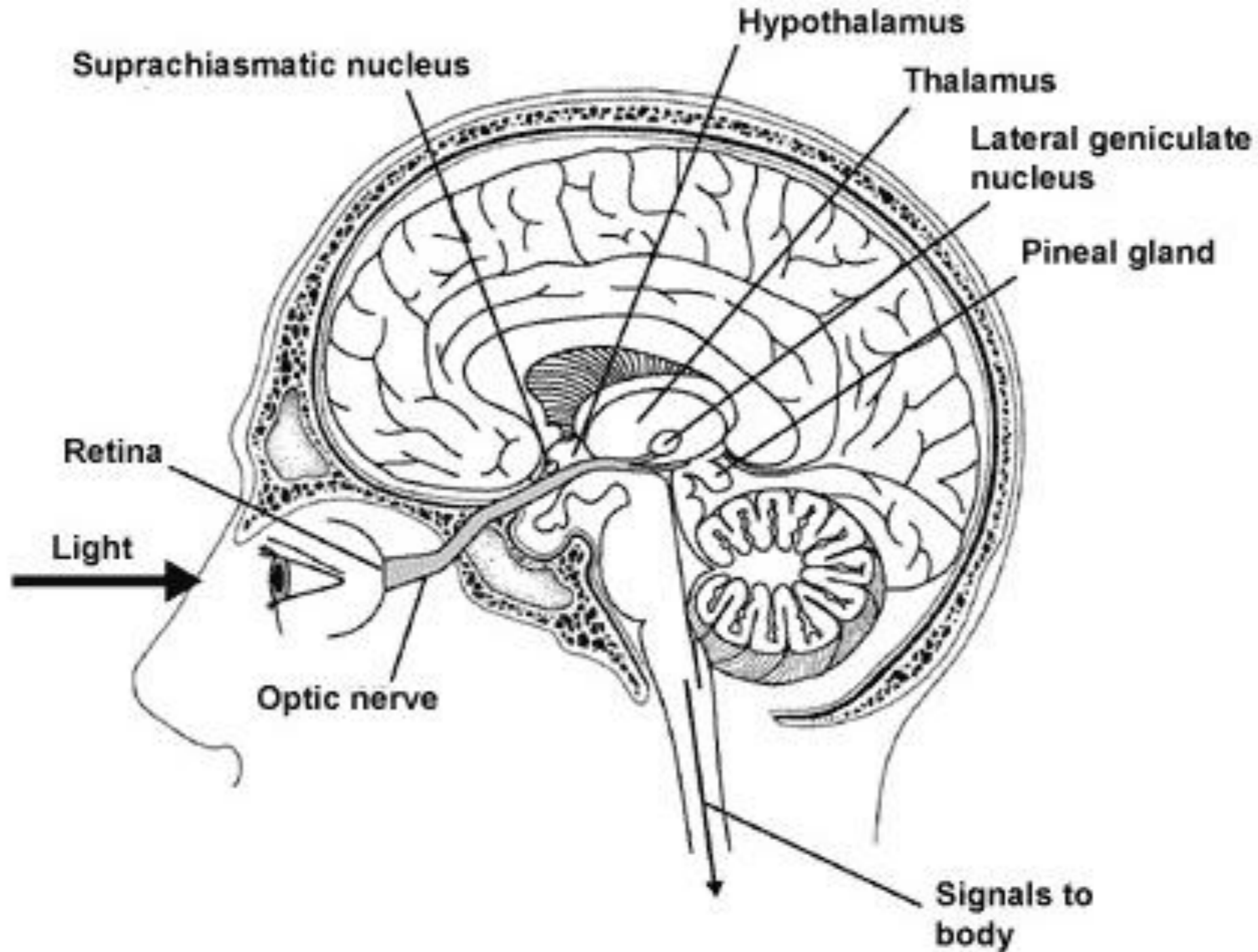


Ideally, the Human Body Sleeps and Awakens on a 24.5 Hour Biological Clock (Circadian Rhythm)



How Sleep is Regulated





How We Awaken Naturally After Sleep

Light hits our retina, transmitting signals to our Suprachiasmatic Nucleus which signals our body to awaken, which is why use of a television in the bedroom at night is counterproductive towards forming a solid, biologically controlled sleep cycle.



Adults **NEED** 7 to 8 Hours of Sleep



Teenagers Require 9 Hours of Sleep



Good Sleep Promotes Overall Health (CPAP Machine) for treatment of Sleep Apnea



A Sleep Deficit Reduces Productivity



Coffee is Largely Ineffective as a Masking Agent for Sleep Deprived Employees



APTA Standard

In January 2009, the American Public Transportation Association (APTA) published a standard for Train Operator hours of service requirements.

- Train Operators shall not be assigned a shift which has an overall elapsed time, from start to finish, of more than 16 hours with no more than 14 hours of work in aggregate.
- There shall be minimum of 10 hours off between shifts.



Dual Employment

Fatigue considerations when reviewing applications for dual employment:

- All NYCT employees are required to obtain agency approval prior to engaging in secondary employment.
- NYCT evaluates the work hours of the proposed secondary employment to ensure that there is adequate rest time between the employee's NYCT work shift and the secondary employment work shift.



Enhanced Supervision

- Each Train Service Employee is formally evaluated at a minimum of three times a year.
- Managers conduct monthly Fitness for Duty checks on randomly selected Lines, dates and tours.
- Supervisors monitor Train Operator's performance to ensure compliance with posted speed and operation restrictions.



Collisions and Derailments

When employees are involved in collisions, derailments or other serious accidents, their previous work shifts are evaluated to determine if fatigue may have been a factor in the accident.



Moving Forward

- MTA New York City Transit continues to evaluate the feasibility of implementing a standard consistent with the APTA standard for Train Operator hours of work.



14-hour Work Rule Study

- Senior NYCT Management requested a study of the implications of limiting hourly Rapid Transit Operations (RTO) employees to a maximum work day of 14 hours from the current 16 hours in order to limit employee fatigue.
- The titles involved are: Train Operator, Conductor, Train Service Supervisor, Tower Operator, Train Dispatcher, Assistant Train Dispatcher, Yard Dispatcher, and Console Train Dispatcher.
- The study will determine the number of jobs exceeding 14-hours in 2011 and provide a distribution of time worked in excess of 14-hours. Then, it will determine the budget impact of enforcing the 14-hour rule. Finally, the study will attempt to identify which variables (i.e., weather, emergencies, open work, special events, etc) show a direct correlation with the number of daily occurrences (employees working more than 14-hours).



REMEMBER!!!

An Employee With a Sleep Deficit Will Experience One or More of Three Scenarios WHILE AT WORK

- They will **FORGET** or **NOT CARE** about where they are.
- They will **FORGET** or **NOT CARE** about what they are doing.
- They **WILL** eventually **FALL ASLEEP**, and we prefer that they are not behind controls of a train when that happens...

