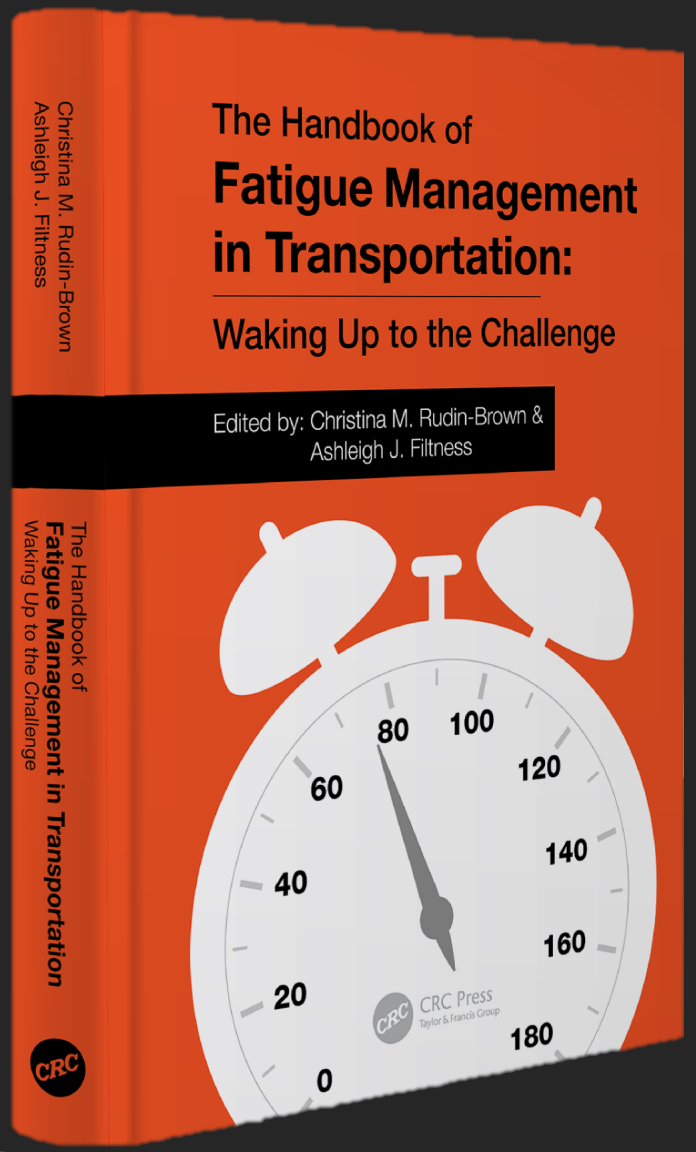

Space Transport & Fatigue
Crystal L. Kirkley, MS

NASA Fatigue Countermeasures Laboratory

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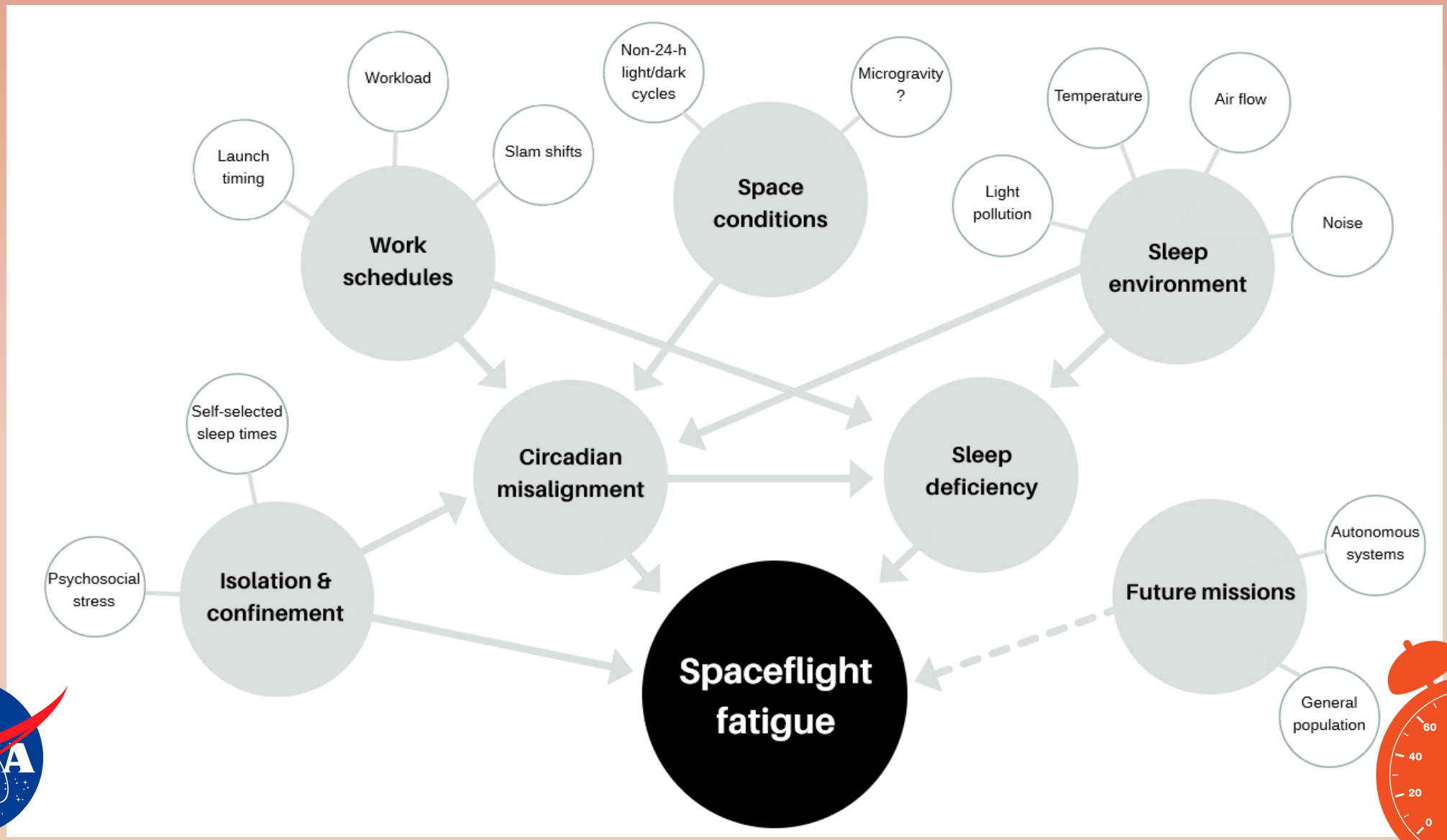
WORKING TIME SOCIETY
Scientific Committee on Shiftwork and Working Time of the International Commission on Occupational Health

Fatigue management in transportation
13/03/2024

What are the challenges to sleep in space?



The handbook of fatigue management in transportation:
Waking up to the challenge

How can we protect sleep & manage fatigue during space travel?

- Light interventions
- Improved scheduling tools
- Habitat design
- Pharmacological countermeasures

Source: nasa.gov

The handbook of fatigue management in transportation:
Waking up to the challenge

Future challenges to managing fatigue in space

- Nature of spaceflight changing rapidly
  - Space travel becoming more accessible
  - Passive passengers
  - Autonomously piloted spacecraft

Source: nasa.gov

The handbook of fatigue management in transportation:
Waking up to the challenge

Summary points for practitioners

- Many of the fatigue risks in space are similar to shiftwork on Earth
- Some unique fatigue risks specific to spaceflight
- Fatigue countermeasures
- Commercial spaceflight/Diverse traveling population

The handbook of fatigue management in transportation: Waking up to the challenge

Source: nasa.gov