

HEADACHE

(ISS MED/3A - ALL/FIN)

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NOTE

1. Headaches can arise from many different causes. In the first few days of flight, headward fluid shift and Space Motion Sickness may lead to headaches, which typically is resolved with simple treatment and adaptation to weightlessness. Other potential causes include tension (chronic contraction of scalp muscles), eye strain (especially associated with dimly lit areas), chronic noise exposure, dental disorders, respiratory illness and fever, and sided effects from certain drugs such as cardiac medications. Commonly, headaches associated with space flight are simple and self-limited, and usually treated with mild to moderate strength pain medications. If there are any other associated warning symptoms such as vision changes, ringing in ears, nausea and vomiting (aside from Space Motion Sickness), personality changes, neck stiffness, light sensitivity, or headache becomes severe or more frequent, schedule a PMC and contact Surgeon immediately.
2. Environmental factors must be considered as a cause of headaches. These include toxicity from such agents as carbon monoxide and other combustion products, hypoxia, carbon dioxide toxicity, and chronic noise exposure. It is vital that if more than one crewmember develops a headache at the same time, that the atmosphere be sampled with the Compound Specific Analyzer for Combustion Products (CSA-CP) and the portable Carbon Dioxide Monitor. Also, if headaches develop in a certain region of the ISS, these gas analysis readings must be obtained in that region. Surgeon will advise if achieved gas samples are indicated. Headaches occurring at night in a sleep station or other more enclosed area is possibly due to local CO₂ buildup; if possible, try to increase ventilation to this area.

TREATMENT

1. If headache not associated with warning symptoms as listed above, the following medications may be used.
If headache associated with any warning symptoms is particularly severe, or does not respond to any of the medications below, go to step 2.

Medication is listed in increasing order of strength.

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NOTE

1. Ascriptin (buffered aspirin), Motrin, Voltaren, and Arthrotec are all anti-inflammatory and analgesic agents, and in the doses recommended here are nearly equivalent in pain relief. All may cause mild upset stomach and should be avoided if there is allergy to aspirin. Arthrotec is a combination of anti-inflammatory drug and stomach-protective agent, with decreased risk of stomach discomfort and erosions, it should be used if the other agents cannot be tolerated. Use of Arthrotec decreases the risk of developing erosive and ulcerous lesions of the gastrointestinal tract. Selection is based on crew experience and dosing convenience.
2. Tylenol and Analgin are analgesics. Analgin has minimal and Tylenol has no anti-inflammatory effects. They do not cause upset stomach, and work almost as well for general pain as do the anti-inflammatory agents. Selection is based on crew experience.
3. Vicodin is Tylenol plus a mild narcotic and is the strongest oral pain reliever. It may cause some drowsiness and dizziness.

AMP
(blue)

Tylenol (Acetaminophen) (P1-A1,2,3) - Aspirin-free pain reliever

Dose: 1-2 tablets every 4 to 6 hours as needed.

___-1,
___-2

Analgin - Non-narcotic analgesic agent

Dose: 1 tablet 3 times/day

Possible side effects

Blood clotting defect due to low platelets

AMP
(blue)

Motrin (Ibuprofen) (P1-B5,6) - Oral anti-inflammatory drug and pain reliever

Dose: 1 tablet every 8 hours with food and drink

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NOTE
Do not take if allergic to aspirin.

Possible side effects
Upset stomach, diarrhea

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(blue)
-or-
__-1

Voltaren (Diclofenac Sodium) (P1-B-10) - Oral anti-inflammatory drug, effective alternative to Motrin for pain relief of headache, backache, sinus pressure

Dose: 1 tablet 2 to 3 times/day as needed

NOTE
Do not take if allergic to aspirin.

Possible side effects
Abdominal pain, cramps, fluid retention

__-1,
__-3

Arthrotec (Diclofenac/Misoprostol) - Non-steroidal anti-inflammatory oral pain reliever with stomach protective prostaglandin

Dose: 1 tablet 2 to 3 times/day

Possible side effects
Upset stomach, bleeding defects

- 2. If headache is associated with any warning symptoms, is particularly severe, or does not respond to any of the medications in step 1, contact ground and schedule PMC.

Be ready to provide the following information.

Location of pain: _____

Duration of pain: _____

Description of pain: _____

Associated symptoms: _____

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Any recent medications: _____

ALSP

Blood Pressure: _____
(ALSP-4)

Pulse: _____

ALSP

Temperature (Oral): _____
(Assessment-4)

Surgeon will advise further diagnostic studies or if examination is required.