THE SINUSES
These are air-filled cavities in the bones of the skull that open into the nose. There are four pairs: frontal, which sits above the eyes in the forehead; maxillary, behind the cheekbones; sphenoid, behind the nose; and ethmoid, between the eyes and the bridge of the nose.

WHAT IS SINUSITIS?
Inflammation and swelling of the lining of the sinuses, which blocks the openings into the nose, prevents normal drainage and creates a breeding ground for further infection. Possible causes are a viral, bacterial or fungal infection, or an allergy.

Acute sinusitis is diagnosed when symptoms last up to four weeks (Brook et al, 2000). Subacute (or relapsing) sinusitis is diagnosed when symptoms persist or recur after four weeks, but last for less than three months.

Chronic sinusitis is diagnosed when symptoms persist for more than three months. It is also diagnosed when people have more than three or four significant episodes annually, or repeatedly fail to respond to medical treatment.

SIGNS AND SYMPTOMS
- Facial pain and tenderness.
- Painful mastication.
- Reduced sense of smell.
- Headache that worsens when leaning forwards.
- Pyrexia (greater than 38.5°C).
- General malaise.
- Yellow/green nasal discharge.
- Swelling around the eyes.
- Blocked nose.
- Nausea.

RECOMMENDED TREATMENTS
- Antimicrobials are recommended for those with severe symptoms, or persistent symptoms of at least seven days duration. Most people with acute sinusitis recover spontaneously (Stalman et al, 1997).
- Antimicrobials: amoxicillin; erythromycin; oxytetracycline or doxycycline as first-line treatments (De Ferranti et al, 1998).
- Co-amoxiclav or ciprofloxacin where response to first-line treatments has been poor.
- Decongestants: despite a lack of placebo-controlled trials, decongestants are often used. Use for more than seven days can result in rebound symptoms (rhinitis medicamentosa).
- Intranasal corticosteroids: recent studies suggest there may be benefits for acute sinusitis when these are added to antimicrobials (Dolor et al, 2001). However, the results are inconclusive.
- Steam inhalation: not recommended for routine use. Benefits are uncertain and there may be a danger of scalding.

NURSING IMPLICATIONS
Advis the patient to:
- Reduce normal activities until acute symptoms have subsided;
- Drink lots of fluids, especially water, to help loosen secretions;
- Blow the nose gently;
- Elevate the head when lying down to relieve the stuffy feeling;
- Take analgesics such as paracetamol.

REFERENCES


WEBSITES
Public Health Laboratory Service: www.phls.org.uk

Prodigy guidance on sinusitis: www.prodigy.nhs.uk/ClinicalGuidance/ReleasedGuidance/webBrowser/phls/PL149.htm