FLUID BALANCE

WHAT IS IT?
- Fluid balance is the maintenance of the correct amount of fluid in the body. It is the continuance of the fluid input and output of the body.
- Fluid balance can alter with disease and illness. Body fluids are regulated by fluid intake, hormonal controls and fluid output (Potter and Perry, 2001).

TERMINOLOGY
- Hypovolaemia is the term used for loss of fluid, defined as 'an abnormally low circulating blood volume' (Mosby, 2002).
- Hypervolaemia is the term used for fluid overload, defined as 'an increase in the amount of intravascular fluid, particularly in the volume of circulating blood or its components' (Mosby, 2002).

INFLUENCES ON FLUID BALANCE
Fluid loss:
- Diarrhoea and/or vomiting;
- Sweating/fever;
- Haemorrhage;
- Diuretics or excessive urination.
Fluid gain:
- Congestive cardiac failure;
- Renal failure;
- High sodium intake;
- Cirrhosis of the liver;
- Over-infusion of intravenous fluids.

OTHER CONSIDERATIONS
- The patient’s mobility/abilities: if a patient is physically disabled he or she may not be self-caring with regard to his or her fluid intake.
- A patient who has had a cerebral vascular accident may not be able to physically take and drink fluid.
- Some patients with incontinence problems may restrict their fluid intake, believing this will alleviate the problem.

RECORDING FLUID BALANCE
- The nursing assessment should include: the patient’s history, a physical examination, clinical observation and the interpretation of laboratory results (Place and Field, 1997).
- A detailed account of the patient’s fluid intake and output should be taken. The nurse may have to rely on relatives and carers to give this information if the patient is unable to.
- A clinical assessment of the patient should be carried out. This should include vital observations such as measuring the blood pressure, pulse, respiration and temperature.
- The patient’s physical appearance should be noted: attention should be paid to the skin, tongue and face. The general well-being of the patient is a good indication of fluid loss or gain.
- Central venous pressure (CVP) is a measurement of pressure in the right atrium of the heart and is a good indication of the amount of fluid contained within the body.
- The patient’s intake and output are recorded on a fluid balance chart. An accurate recording is important. Output is often recorded as ‘passed urine ++’ or ‘up to toilet’, which is far from accurate and does not give a clear indication of the amount of urine passed.
- Fluid balance is continually monitored for patients who have already shown signs and symptoms of fluid imbalance. Other patients at risk, for example patients who are critically ill or postsurgical, should be closely monitored.

IMPORTANT FACTORS
- Accurate measurement in the recording of patients’ intake and output is crucial.
- Close monitoring and observation of the patient will provide early detection of fluid imbalance.
- The close monitoring of patients who are administered diuretics is essential.

REFERENCES