

6. What are the congenital deformities?
7. What are fractures?
8. Describe the basic types of fractures.
9. What is osteomyelitis?
10. What is an amputation?
11. Talk about some other disorders of the musculoskeletal system?
12. What is rheumatoid arthritis.
13. How would you treat the fractures?

Translate:

tělesný pohyb, příčiny deformit, defekty ve vývoji, prevence a náprava deformit, vyjadřete názor, má původ v dětství, diagnóza a léčení, studium svalové a kosterní fyziologie, chirurgické prostředky, vrozená vada, získaná vada, život po narození, příznaky nemoci, laboratorní vyšetření, genetické poruchy, vliv okolního prostředí, abnormální růst, prst navíc, vyskytující se porucha, neschopnost pohybu, snížená pohyblivost, abnormální protilátková reakce, oteklé klouby, zvýšená sedimentace, bolest v zádech, stárnutí

## 8. SURGERY

Surgery is defined as the treatment of a disease, injury or deformity by a manual or an instrumental procedure. Surgical operations may be classified as elective, essential or emergency.

1. An **elective operation** is not necessary for the patient's survival but it is expected to improve his comfort and health.
2. **Essential surgery** is considered necessary to remove or to prevent a threat to the patient's life.
3. An **emergency operation** is one, which must be done with a minimum of delay in the interest of the patient's survival.

Nursing care of the surgical patients is extremely important and includes preoperative period and also the postoperative care period. Patients who are having surgery need both psychological and physical preparation.

### The Preoperative Period

Potential problems common to the patients preoperatively include anxiety and lack of knowledge. The nurse must encourage the patient to reveal his fears and inform him about the surgical procedure. The preoperative period, which begins with the decision that surgery is to be performed, may extend over an hour to several days or weeks. If special laboratory tests are required before surgery or if the patient is in a weakened condition, the admission to the hospital may be a few days prior to the operation.

All patients have a chest X-ray examination, a complete blood count, and urinalysis. A cleansing enema is usually ordered for the evening or morning before surgery, because urinary and anal spincters relax when a patient is anaesthetized. Then the operative site is cleaned and shaved. If bone surgery is to be performed, the skin is scrubbed with an antiseptic after hairs have been removed. A regular diet or a light diet is usually prescribed and all oral intakes are prohibited at least 8 hours before the operation. Preoperative drugs are administered before the patient leaves the nursing unit. The purposes of it are to reduce anxiety and facilitate the induction of anaesthesia. Also barbiturates, narcotics or tranquilizers are used as a sleeping aid in the evening or some hours before the procedure to relax the patient.



**Anaesthesia** is a condition in which there is no feeling and is classified as being general or regional.

**General anaesthesia** is induced by having the patient inhale a gas (ether or nitrous oxide) or injecting a drug into the patient's vein, a smaller amount of gas may be combined with injecting penthothal. The agents produce the reversible depression of the cerebral neurones that are responsible for awareness and responses; there is loss of sensation, consciousness, reflex responses, and skeletal muscle tone. The muscles relaxation facilitates the surgery.

**Regional anaesthesia** temporarily blocks the sensory receptors in the surgical area or the nerve impulses in the area of the conducting pathway. The patient remains conscious but may be drowsy due to preoperative sedation. It is produced by the following methods:

1. Local infiltration, which involves the injection of an anaesthetic agent (such as novocain) into the surgical site or into the area to be manipulated, makes the local receptors irresponsible to stimuli. It is used primarily in minor superficial procedures.
2. Peripheral nerve block is produced by the injection of an anaesthetic agent into the area of a large nerve trunk or plexus, or into the tissues surrounding the operative site. The conduction of sensory nerve impulses is interrupted. This type is used, for example, when a tonsillectomy is done.
3. Spinal anaesthesia means the injection between the second and fourth lumbar vertebrae. The agent blocks impulses in the origin of peripheral nerves. It is mainly used in low abdominal and lower limb surgery.
4. Epidural anaesthesia, when the lower part of the vertebral canal is injected, is used in rectal and perineal procedures, or in obstetrics during labour and delivery.
5. Topical or surface anaesthesia, which is produced by the application of the agent to the skin or mucous membrane. It results in blocking off the sensory receptors and is used primarily in nose and throat procedures.
6. Hypothermia is used rarely as a local anaesthetic in limb surgery when the limb is enclosed in ice or in a cooling blanket for several hours previous to surgery. It might be used when the patient's general condition is such that anaesthetic drugs would be hazardous. It also may be used occasionally in brain or cardiac surgery to slow body metabolism and decrease the body's oxygen requirement. If the

surgery places the brain at the risk of a decreased blood and/or oxygen supply, the body is cooled to reduce cell activity and prevent brain damage.

#### **Intraoperative Phase**

Operating theatre procedures vary greatly from one hospital to another. The operating theatre should be located, constructed and equipped to promote safety and quiet, prevent infection and facilitate surgical procedures, frequent disinfection and aseptic techniques. It is often located near the recovery room and surgical intensive care unit. Windows are absent and air conditioning is provided by a special ventilation system to remove dust and organisms and reduce the risk of infection.

All operating theatre personnel wear operation gowns, caps to cover their hair, a mask over their nose and mouth, and covers over their boots. Street clothing or ward uniforms are not permitted. If a staff member has an infection, he is excluded from the operating theatre. Everything is sterilized and surgically cleaned.

#### **Postoperative Care**

The postoperative care is given in two phases: immediate care, while the patient is still under the influence of the anaesthetics, and care during the convalescence.

If the patient requires close observations for a longer period of time, he may be transferred to the intensive care unit (ICU). Special nursing actions here are:

- a) Check vital signs every 5 to 15 minutes and report significant changes in blood pressure, pulse rate or respiration.
- b) Check bandages for drainage, noting colour and amount.
- c) Keep the patient's head flat and turned to one side to allow drainage of secretions or emesis from the mouth and to prevent aspiration.
- d) Suction of any excess secretions that collect in the mouth or throat.
- e) Maintain all fluids flowing at a prescribed rate.
- f) Check all tubing (catheters, nasogastric tube, wound tubing) for patency, observe amount and character of all drainage.
- g) Observe skin colour and temperature; pale, cool skin is normal after surgery; but cyanotic and clammy skin is an indication of shock.
- h) Assess level of consciousness at regular intervals.
- i) Administer analgesics as ordered.

## VOCABULARY

absorb [əb'sɔ:b]	vsříbat (se)
access [æksəs]	přístup
adhesive tape [əd'hi:sv teip]	lepivá náplast
air embolus [eə embələs]	plicní embolie
anaesthesia [æni:'θi:siə]	anestézie
analgesic [æneɪ'l'dʒi:tik]	analgetikum
approach [ə'prəʊtʃ]	přístup
assess [ə'ses]	posoudit
atropine [ætrəpi:n]	atropin
bandage [bændidʒ]	obvaz
catheter [kæθite]	katétr
catheterise [kæθiteɪzaɪz]	cévkovat
closure of wound [klaʊzə əv wu:nd]	uzavření rány
congestion [kən'dʒesʃn]	překrvení
contaminate [kən'tæmineɪt]	znečistit
craniotomy [kreɪni'ɒtəmi]	otevření lebky
diminish [dɪmɪnɪʃ]	zmenšit
drain [dreɪn]	odtékat
edge [edʒ]	okraj
enema [enəmə]	klystýr
expose [ɪks'pəʊz]	odhalit, vystavit (čemu)
faeces [fi:si:z]	výkaly, stolice
forceps [fɔ:seps]	kleště, porodnické kleště
gangrene [gæŋgrɪ:n]	sněť
impairment [ɪm'peɪmənt]	zhoršení
induce [ɪn'dju:s]	zavést
inflamed [ɪn'fleɪmd]	zanícený
ischaemia [ɪs'ki:mɪə]	nedokrvinnost
lateral [lə'terəl]	boční
pass a nasogastric tube [pas ə neɪzəu'gæstrɪk tu:b]	zavést nosní sondu
prior to [praɪə tə]	dříve než
pus [pʌs]	hnis
rupture [rʌptʃə]	průtržení
scar [skɑ:]	jizva
scissors [sɪzəz]	nůžky

scrub [skrʌb]	dřhnout (ruce)
sedative [sə'deɪtɪv]	1. uklidňující; 2. sedativum
stitch [stɪtʃ]	steh
insertion of stitches [ɪn'sɜ:n əv stɪtʃɪz]	sešítí
support [sə'pɔ:t]	podpora, podporovat
suture [sɪ:ʃə]	steh, šev
swollen [swəʊlɪn]	oteklý, napuchlý
traumatic [tro:'mætlk]	způsobený ranou

## QUESTIONS AND EXERCISES

Answer:

- How would you provide psychological support to the patient before surgery?
- What procedures must the patient undergo before surgery?
- How would you prepare the operative site?
- What is the purpose of preoperative drugs?
- What preoperative drugs do you know?
- Describe two types of anaesthesia.
- Describe the basic postoperative care.
- What would you do if the patient feels pain after the operation?
- What symptoms suggest some pathological process in the wound?
- How is it treated?
- What are the specific nursing actions in an ICU?
- Describe an operation that you have seen or you have undergone.

Translate:

chirurgická operace; v zájmu pacientova přežití; jsou požadovány speciální laboratorní testy; přijetí do nemocnice; klystýr; vydrhnout ruce; přijímání potravy je zakázáno; umožnit provedení anestezie; celková a místní anestézie; ztráta vědomí; svalová relaxace; menší povrchový výkon; častá desinfekce; odstranit prach a bakterie; personál operačních sálů; častá operační péče; JLP; zaznamenat změny; kontrolovat obvazy; zabránit vdechnutí zvratků; podávat léky a analgetika; bledá a chladná kůže je normální