Pain components and pain qualities

Pain qualities (1)

How does pain feel and where does it come from?

- **somatic pain**
  - superficial pain
    - skin
      - needle prick, crushing
    - muscles, connective tissue, bone, joints
      - muscle spasm, headache
  - deep pain
    - intestines
      - gallbladder colic, stomach ache, appendicitis pain

- **visceral pain**
  - intestinal pain

Pain components

Analysis in the brain

- site of pain
- intensity of pain
- duration of pain
- quality of pain

Effects

- sensation of aversion
- nausea and circulatory effects (autonomic nervous system)
- reflexes

Pain components and pain qualities

A  Pain qualities

Superficial pain arises in the skin. Example of needle prick:
The 1st pain is a sharp, easily located pain, which fades quickly (A-delta fibre, see also Section 1 “Acute pain – a protective function”).
The 2nd pain is a dull, burning pain that is difficult to locate (C fibre). It generally starts a short time afterwards. Superficial pain triggers defensive reflexes.

Deep pain arises in bone, joints, connective tissue and skeletal muscle. It feels dull, often radiates into the surrounding area and is usually difficult to localise.

Intestinal pain tends to be dull and may be very intense. It occurs for example in severe stretching or muscle cramps (colic) of a hollow organ (gallbladder or renal pelvis). Typical accompanying symptoms: nausea, bouts of sweating and strong sensation of illness.

B  Pain components

Sensory discriminative component:
Analysed in the brain according to site, intensity, duration and nature.

Emotional component:
Pain is associated to a greater or lesser degree with emotions, such as anxiety, aversion or helplessness.

Autonomic component:
Pain leads to reactions of the autonomic nervous system, such as increase in blood pressure and heart rate, or nausea.

Motor component:
Protective reflexes (for example withdrawing the hand), relieving postures, muscle tension.

Cognitive component:
Pain is classified and evaluated on the basis of previous experience, observations or information.