**Neurotransmitters** pg. 60 fig. 3.9
(major ones and what they do)

**Acetylcholine**: active in nerve cell junction. (affects mental activity, memory and learning). Acetylcholine imbalance in Alzheimer's disease.

**Norepinephrine** or **Noradrenalin**: activated by a demand from the body for energy. (affects motivation, hunger, attention span, confidence and alertness.


**Enkephalin**: deaden pain and trigger the reward-pleasure center.

**Serotonin**: (satisfaction) controls mood stability, including depression and anxiety, appetite and sleep, and sexual activity.

**Gaba**: (inhibitory) neurotransmitter. Involved in 25 to 40% of synapses in the brain.

**Substance P**: pain

**Anandamide**: receptor for THC. (active ingredient in marijuana)

**Glycine**: (inhibatory)

**Histamine**: regulate emotional behavior and sleep.

**Nitricoxide**: regulation of emotion, involved in message transmission to organs such as the penis.

**Glutomic acid**: excitatory NT.
NERVOUS SYSTEM

The Nervous System is concerned with the INTEGRATION and CONTROL of all bodily functions.
It has specialized in IRRITABILITY — the ability to receive and respond to messages from the external and internal environments and also in CONDUCTION — the ability to transmit messages to and from CO-ORDINATING CENTRES.

The NERVOUS SYSTEM consists of

CENTRAL PART — The BRAIN and SPINAL CORD

linked by an outlying or

PERIPHERAL PART — Nerve fibres

TISSUES and ORGANS of the body

SENSORY Nerve fibres carry messages from Tissues and Organs to the Brain or Spinal Cord.

MOTOR Nerve fibres carry messages to Tissues and Organs from the Brain or Spinal Cord.
Fig. 22: THE MOTOR HOMUNCULUS

Toes
Ankle
Knee
Hip
Trunk
Shoulder
Elbow
Wrist
Hand
Little
Ring
Middle
Index
Thumb
Neck
Brow
Eyelid and Eyeball
Face

Swallowing
Tongue
Jaw
Lips