

LESSON PLAN: MEDICAL TERMINOLOGY, ANATOMY, PHYSIOLOGY

1. MOTIVATE

- TERMINOLOGY * FOR COMMUNICATION WITH MDs, RNs, etc.

* FOR LEARNING MORE ADVANCED KNOWLEDGE & SKILLS

* BECAUSE LANGUAGE AFFECTS THINKING

* EMTs ARE SUPPOSED TO BE MEDICAL PROFESSIONALS

- ANATOMY & PHYSIOLOGY:

* FOR COMMUNICATION

* SO AS TO REASON OUT THINGS YOU DON'T KNOW.

E.G.: ABDOMINAL PAIN, SICK, WHITE/YELLOW STOOLS

⇒ LIVER ⇒ HEPATITIS? ⇒ PRECAUTIONS

2. MEDICAL TERMINOLOGY

- MADE FROM PARTS

(GIVE EXAMPLES) (QUIZ STUDENTS)

- ABBREVIATIONS

* IN RECORDS

(GIVE EXAMPLES) * OVER RADIO

(DECIPHER MED. NOT) * FOR YOUR RECORDS

3. GENERAL AND TOPOGRAPHIC ANATOMY

STANDARD POSITION

HEAD / NECK / THORAX / ABDOMEN / EXTREMITIES

BIL. SYMMETRIC MIDDLE (MEDIAL) / LATERAL (MIDSAGITTAL)

EXTREMITIES: DISTAL / PROXIMAL

(VENTRAL / DORSAL)

ANTERIOR / POSTERIOR

(FRONTAL / CORONAL)

SUPERIOR / INFERIOR

(TRANSVERSE)

(CEPHALIC / CAUDAL)

(PALMAR, PLANTAR)

← →
ABDUCTION, ADDUCTION

FLEXION, EXTENSION

ROTATION (LATERAL, MEDIAL)

EXTREMITIES: UPPER ARM, FOREARM, THIGH

THE HEAD

CRANIUM / FACE (TRANSVERSE PLANE THRU EYES)

OCCIPUT; TEMPLES (TEMPORAL REGIONS); PARIETAL (TEMPORAL ARTERY)

ORBIT (SUPT FT FX, "BLOWOUT")

MAXILLA (V FOR FX), MANDIBLE, TEMPORO-MANDIBULAR JOINT (REDUCING DISLOCATIONS)

NOSE (DISTAL 2/3 CARTILAGE) } CSF (DON'T STOP WITH?) (SHORT TUBT FLM BLOOD / CSF)

EAR (AZL CANAL)

↳ TRAGUS } PINNA

MASTOID (BATTLE SIGN)

BRAIN: CEREBRUM, CEREBELLUM, PONS, MEDULLA, CRANIAL NERVES, SPINAL CORD, TONSILS

THE NECK

LARYNX (TOP OF THYROID CART.)

CRICOID CART. ⇒ CRICOTHYROID PUNCTURE

TRACHEA CART (ESOPHAGUS, OESOPHAGUS BONES)

THYROID GLAND (GROWTH, TEMP.) & PARATHYROID

C-SPINE

THORAX

CAVITY CONTENTS:

LUNGS IN PLEURAL CAVITY, LINED BY PLEURA MEMBRANES (2)

MEDIASTINUM: HEART IN PERICARDIAL SAC, TRACHEA,

ESOPHAGUS (WHICH IN BACK?) THYMUS, GREAT VESSELS

(AORTA, S. + INF. VENA CAVE), DIAPHRAGM

12 RIBS & VERTEBRAE (BOTTOM 2 PRS. FLOATING)

COSTAL ARCH (COSTOCHONDRAL CART) ⇒ STERNUM (MANUBRIUM,

BODY, XIPHOID, JUGULAR (SUPRASTERNAL NOTCH)

INTERCOSTAL MUSCLES / DIAPHRAGM FOR BREATHING

RIBS AND NEUROVASCULAR BUNDLE LOCATION

ABDOMEN

BOUNDARIES; QUADRANTS (UMBILICUS) (ANT. SUP. ILLAC CRESTS) (SYMPHYSIS PUBIS)

RUQ: LIVER, GALLBLADDER, (COLON) } [PANCREAS] [KIDNEYS]

LUQ: STOMACH, SPLEEN, (COLON)

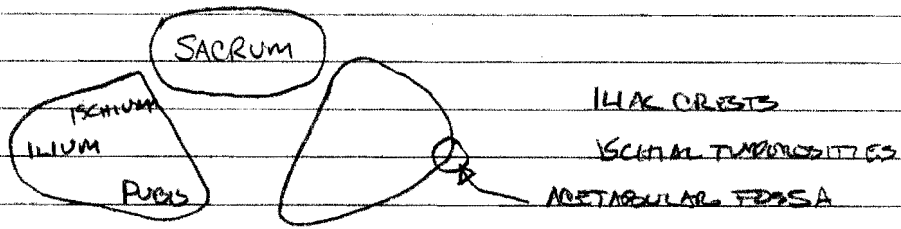
RLQ: COLON, APPENDIX

LLQ: RECTUM (COLON)

} [URINARY BLADDER] / UTERUS

PELVIS

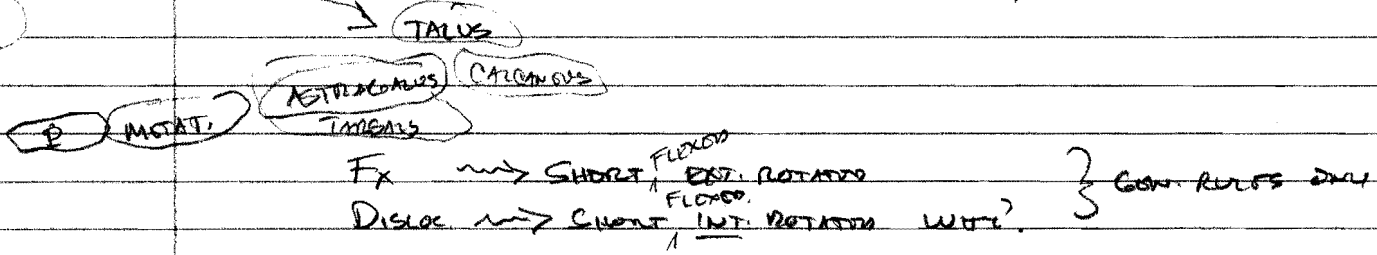
GENITALIA



INGUINAL LIGAMENT / FEMORAL A, V, NERVE
 SCIATIC N.
 PHILIPSON

LOWER EXTREMITY

HIP → JOINT (GREATER TROCHANTER) COMPARE "BUMPS" BILATERALLY
 ACETABULUM; FEMUR; STRONG MUSCLES; CONDYLES
 PATELLA (IN TENDON OF QUADRICEPS FEMORIS ⇒ EXTENSION OF KNEE)
 DISLOCATION ⇒ FORCED FLEXION
 TIBIA/FIBULA (MEDIAL/LATERAL MALLEOL)
 90° FLEX ⇒ HEAD OF FIBULA (PERONEAL N. → DORSIFLEXION / EVANSION AT ANKLE)
 ✓ PERONEAL N. WITH FIBULA FX.



SHOULDER

CLAVICLE (ARTICULATES W/ STERNUM & ACROMION PROCESS OF SCAPULA)
 SCAPULA (GLYOID PROCESS ARTICULATES W/ HEAD OF HUMERUS) (FX ⇒ TRAUMA) ('KNOCKED DOWN')
 HUMERUS: RADIAL N / N GROOVE (INNERVATION)
 ∴ { EPICONDYLES AT ELBOW / OLECRANON OF ULA
 MEDIAL EPICONDYLE ULNAR NERVE ABDUCTION OF FINGERS
 MEDIAN N (ANT. ELBOW)
 ANTECUBITAL FOSSA
 ULNAR / RADIAL STYLOID PROCESS
 MEDIAN N ANTERIOR WRIST

CELLS

LEUKOCYTES: CELLS
COLL. PROTEINS
VITAMINS: QUANTITATIVE
BIOGENESIS

PROVIDING
VITAMINS
PROTEINS

"SPENT CON" ↓ VITAMINS
PASTURE ↑ VITAMINS
COLL. PROTEINS ↑ VITAMINS
BIOGENESIS ↓ VITAMINS
DNA ⇒ RNA ⇒ PROTEIN

- ABSORPTION
- RESPIRATION
- SECRETION
- EXCRETION
- IRRITABILITY
- CONDUCTIVITY
- CONTRACTILITY
- REPRODUCTION & GROWTH

TISSUES

BLOOD & LYMPH
BONE
CARTILAGE
CONNECTIVE TISSUE
MUSCLE 3 KINDS

TISSUE SAME AS CELLS
ACTIVE TISSUE
GRAPE ARTICULAR CARTILAGE, INTERVERTEBRAL DISCS
HYALURONIDASE IN SMALL VESICLE

NERVE: REGENERATION OF PROXIMALS ONLY (MOSTLY)
EPITHELIUM (SKIN + GLANDS)

ORGANS

ORGAN SYSTEMS

- ① INTEGUMENT (LATER)
- ② SKELETAL (LATER)
- ③ MUSCULAR (LATER)
- ④ CIRCULATORY (LATER)
- ⑤ RESPIRATORY (LATER)
- ⑥ NERVOUS (LATER)
- ⑦ ENDOCRINE

PITUITARY
 THYROID ⇒ ACTIVITY
 PARATHYROID ⇒ CALCIUM
 PANCREAS (ISLES OF LINGUINIANS) INSULIN, GLUCAGON ⇒ SUGAR
 ADRENALS
 (OUTER) CORTIX ⇒ SALT, FLUID, ... (CORTICOSTEROIDS)
 MEDULLA ⇒ ADRENALINE, NON ADRENALINE (ADRENORGL) RESPONSE
 (EPINEPHRINE)
 TIES IN W/ SYMPATHETIC N. SYSTEM
 (SHOWS THAT SECRETION IS FROM NERVE CELLS)

GENITALIA

⑧ URINARY SYSTEM

KIDNEYS FILTRATION, RE-ABSORPTION, SECRETION
ERYTHROPOIETIN, ~~ANGIOTENSIN~~ RENIN, KIDNEY STONES
(CALCULI)
URETERS

BLADDER: CAN PALPATE ABOVE SYMPHYSIS PUBIS WHEN
FULL.
URETHRA

⑨ DIGESTIVE SYSTEM

MOOUTH: SALIVARY GLANDS TONSILS ⇒ LYMPHATIC SYSTEM
ESOPHAGUS: VOLUNTARY/INVOLUNTARY
STOMACH: H⁺ PUMP, ~~SECRETION~~, PEPINOGEN, ~~STOMACH~~ MUCUS CHURNING
DUODENUM: PANCREAS: ENZYMES TRYPSIN, CHYMOTRYPSIN
BILE: DEAD RBC'S, FAT EMULSION, GALLSTONES

↙
HEMATEMESIS: ABSORPTION VILLI LYMPHATICS
HEPATIC PORTAL VEIN: LIVER DETOXIFICATION, GLYCOGEN,
(COMPLICATED CIRCULATION: BILE, BLOOD, PORTAL BLOOD
(VERMIFORM)
APPENDIX: LYMPHATIC, BACTERIAL FLORA STORES
COLON: WATER ABSORPTION.

⑩ REPRODUCTIVE SYSTEM

MALE

- MAIN GLANDS: TESTICLES SPERM, HORMONES (OUTSIDE BUT NOT TO)
- DUCTS ~20' LONG, ON TOP SEMINAL DUCT
TO URETHRA
- ACCESSORY GLA