

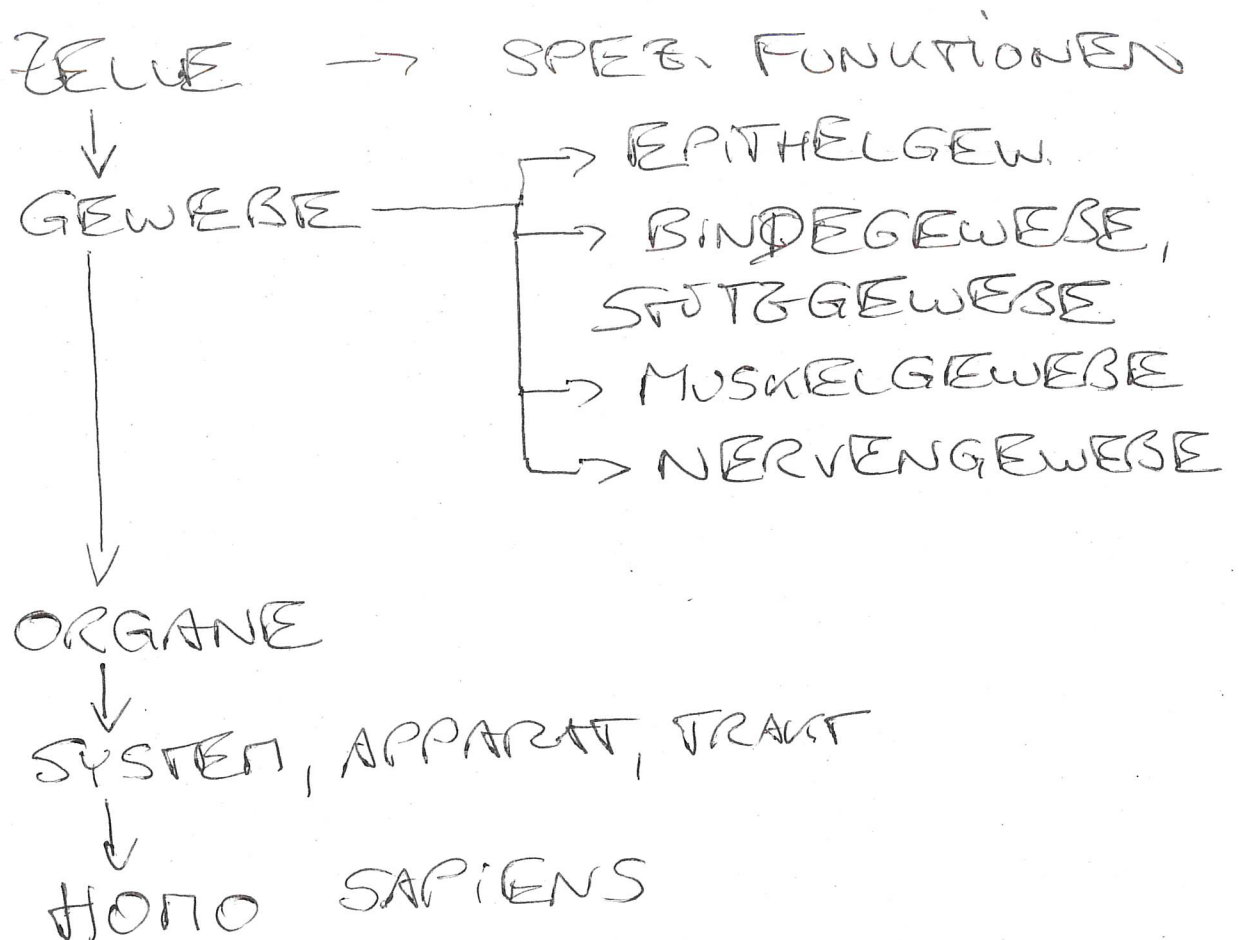


WILLKOMMEN

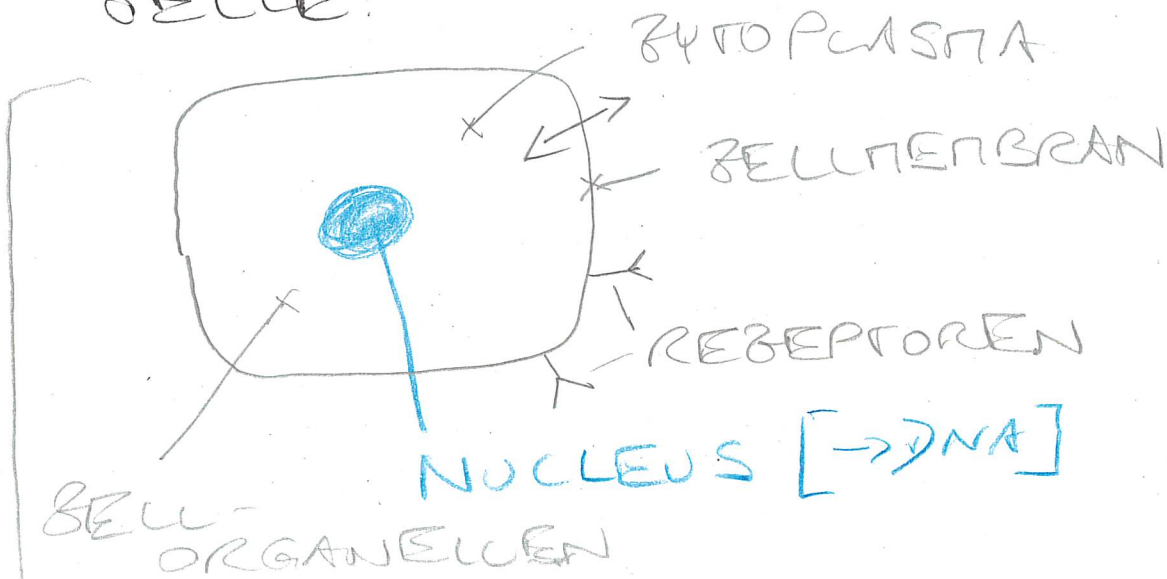
BEI DER ANATOMIE VORLESUNG

- ① - MAKROSKOPISCHE ANATOMIE ✓  
- MIKROSKOPISCHE ANATOMIE ✓  
↳ "HISTOLOGIE"  
[- SUBMIKROSK. ANATOMIE]

- ② - SYSTEMATISCHE ANATOMIE:  
- TOPOGRAPHISCHE ANATOMIE  
- KLINISCHE ANATOMIE



# ZELLE:



GEWEBE: SIEHE VORNE



ORGANE:

HEPAR: EPITHELGEW.  
FEMUR [OS]: STÜTZGEW.  
COR: MUSKELGEW.  
CEREBRUM: NERVENGEW.

# SYSTEME / APPARAT / TRAKT

\* HERZ - KREISLAUFSYSTEM

\* ATENTRAKT

\* VERDAUUNGSAPPARAT

\* BEWEGUNGSAPPARAT

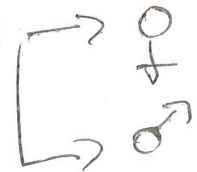
↳ PASSIV

↳ AKTIV

\* UROGENITALTRAKT:

↳ HARNTRAKT

↳ GESCHLECHTSAPP.



\* NERVENSYSTEM

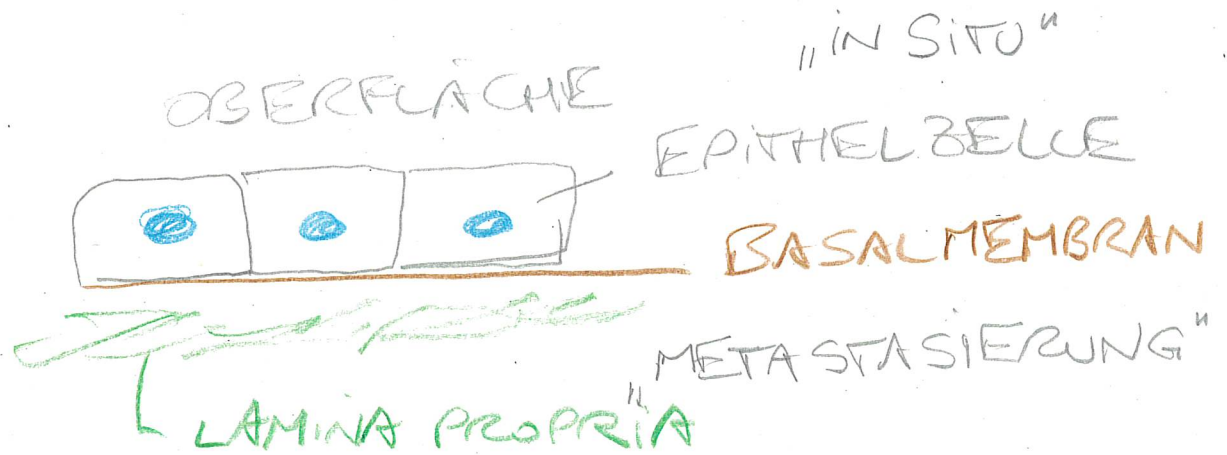
\* HORMONSYSTEM

\* SINNESYSTEM

[INNENSYSTEM]

GEWEBE:

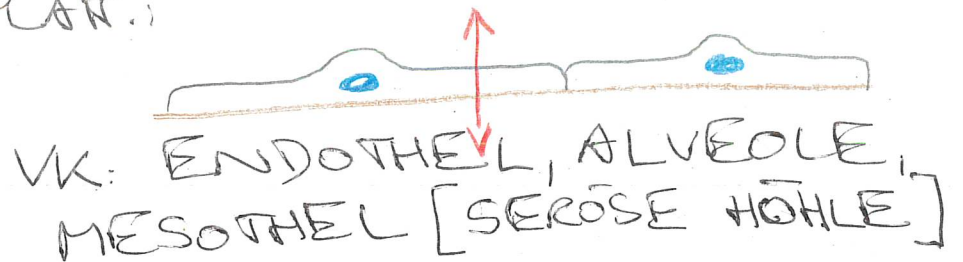
I) EPITHELGEWEBE:



A) PLATTENEPITHELIEN:

1) EINSCHICHTIG

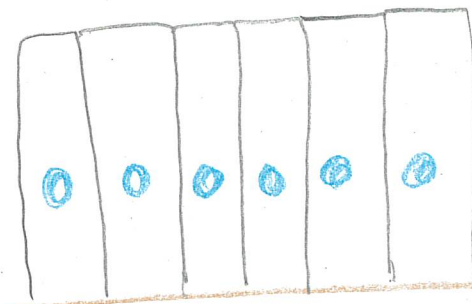
a) PLATT:



b) KUBISCH - ISOPRISMATISCH:

VK: DRÜSEN

c) HOCHPRISMATISCH



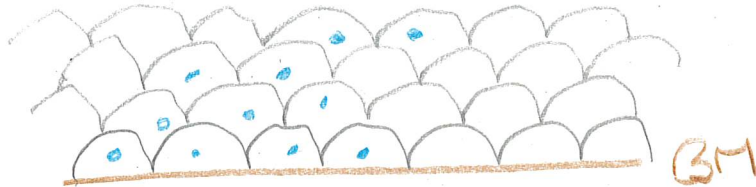
VK:

MAGEN-  
DAR-  
TRAKT



## 2) MEHRSCHICHTIG:

### a) UNVERHORNT: OFL



VK: CAVITAS ORIS, PHARYNX,  
OESOPHAGUS, URETHRA, VAGINA

### b) VERHORNT: EPIDERMIS

## 3) MEHRREIHIG:

VK: FLIMMEREPITHEL IM  
ATENTRAKT

## B) ÜBERGANGSEPITHELIEN:

→ TRACTUS URINARIUS

## C) SONDERFORM: DRÜSENEPITHEL

\* ART der SEKRETION:

\* ABGABEORT: → EXOKRIN  
↳ ENDOKRIN

\* ART des SEKRETS:

↳ MUKÖS

↳ SERÖS

↳ MUKOSERÖS

## II) BINDEGEW. und STÜTZGEWEBE

ZELLE

INTERCELLULARSUBSTANZ

GRUNDSUBSTANZ

FASERN: - KOLLAGENE FASER

- ELASTISCHE F.

- RETIKULÄRE F.

### A) ZELLREICHE BDGW:

1) EMBRYONALES GEW.:

2) FETTGEWEBE: LIPOCYT

a) GELBE FET: "UNIVARUOLÄR"

→ SPEICHERFET:

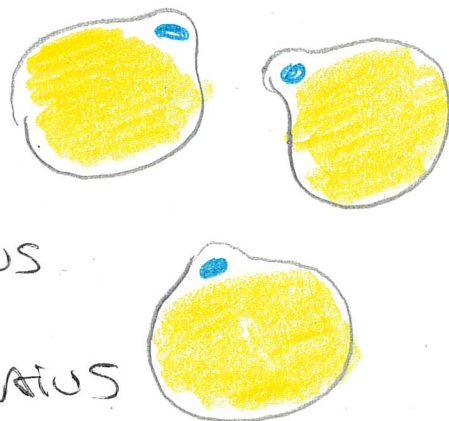
Vk: SUBKUTIS

→ "PANNICULUS ADIPOSUS"

OMENTUM MAIUS

→ BAUFET: "CORPUS ADIPOSUM"

b) BRAUNES FET



a) HYALINER KNORPEL:

→ DRUCK

→ BRECHBAR

→ VERFORMBAR

VK: GELENKKNORPEL,

NASENKNORPEL

LARYNX

b) FASERKNORPEL:

→ DRUCK

→ ZUG

VK: MENISCUS, DISCUS

c) ELASTISCHE KNORPEL:

→ BIEGUNGSELASTISCH,

ZUGELASTISCH

VK: AURICULA

CARTILAGO EPIGLOTTICA

= EPIGLOTTIS = KEHLDECKEL

# 2) KNOCHENGeweBE:

"HARTSUBSTANZ"

KALZIUM, MAGNESIUM

PHOSPHATE, SULFATE

OS, OSSIS

OSTEOCYTEN, OSTEOBLAST

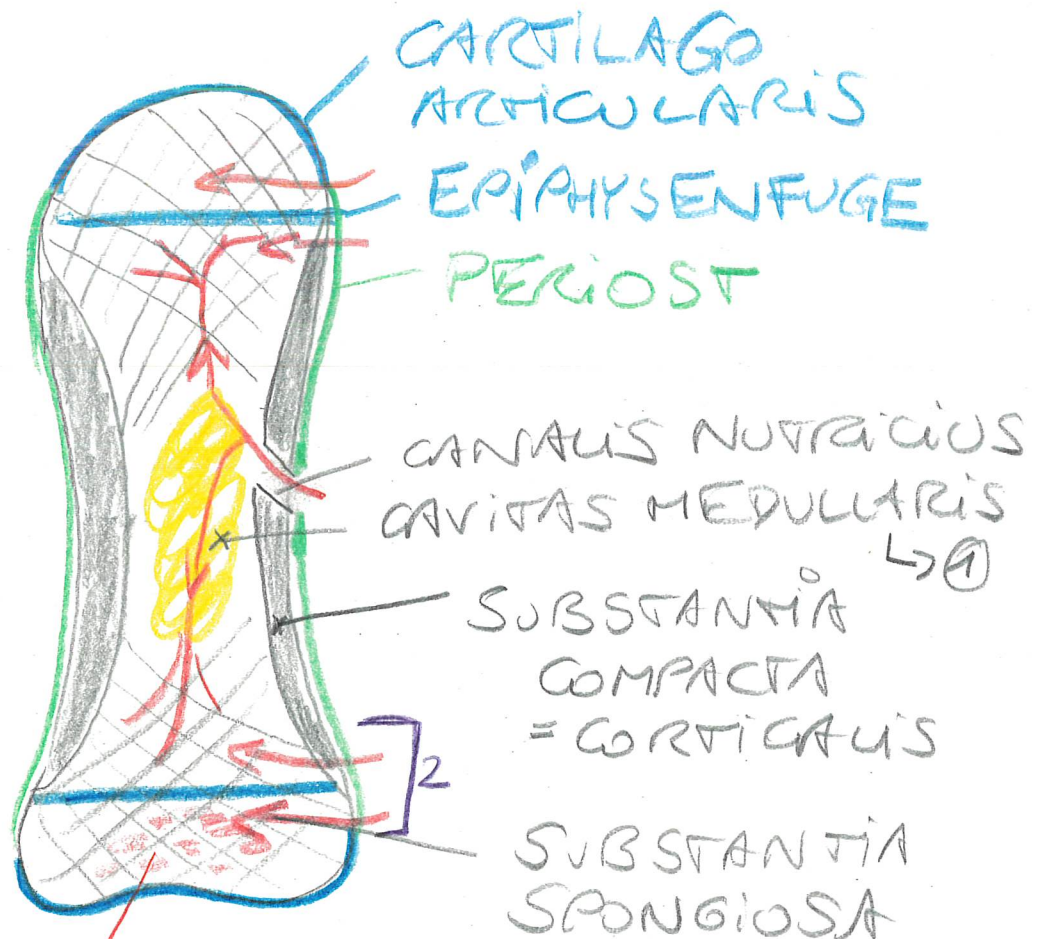
↳ OSTEOID  
↳ FASERN

OSTEOKLAST

OS LONGUM  
EXTREMITAS  
PROXIMALIS  
EPIPHYSE

CORPUS  
= DIAPHYSE

EXTREMITAS  
DISTALIS  
EPIPHYSE



① MEDULLA OSSIUM FLAVA  
MEDULLA OSSIUM RUBRA  
2... METAPHYSE



## KNOCHENTYPEN:

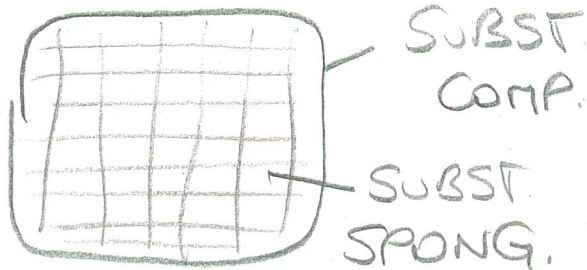
A) OS LONGUM = RÖHRENKNOCHEN

BSP.: HUMERUS, FEMUR

RADIUS, TIBIA, FIBULA

PHALANX

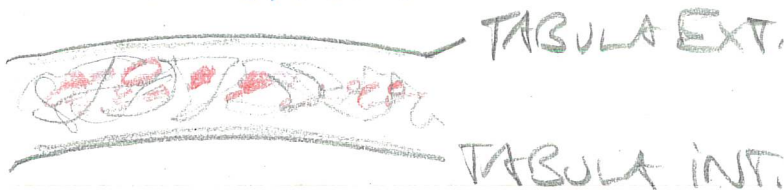
B) OS BREVE:



BSP.: OSSA CARPI,

OSSA TARSII

C) OS PLANUM:



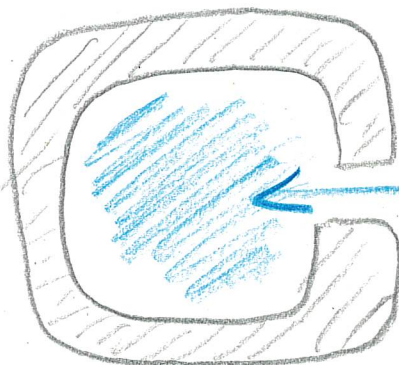
BSP.:

STERNUM,

SCAPULA,

OS COXAЕ

D) OS PNEUMATICUM



BSP.: MAXILLA,

OS FRONTALE

OS TEMPORALE

E) OS IRREGULARE

BSP.: VERTEBRA



### III) MUSKELGEWEBE

AKTIV, O<sub>2</sub>!, KALZIUM, ENERGIE

KONTRAKTILE ELEMENTE

A) QUERGESTREIFTE MUSK.:  
= SKELETTMUSK.

↳ ERMÜDET!

↳ WILLKÜRlich

↳ SCHNELLE KONTR.

B) GLATTE MUSK.: = EINGEWEIDE

↳ UNERPÖDlich

↳ LANGSAM

↳ UNWILLKÜRlich

↳ AUTONOME

INNERVATION

C) HERZMUSK.:

↳ UNWILLKÜRlich ↙

↳ SCHNELL

↳ UNERPÖDlich

### IV) NERVENGEBEWE

↳ siehe NERVENSYSTEM

## ORIENTIERUNG:

### \* EBENEN und AXSEN

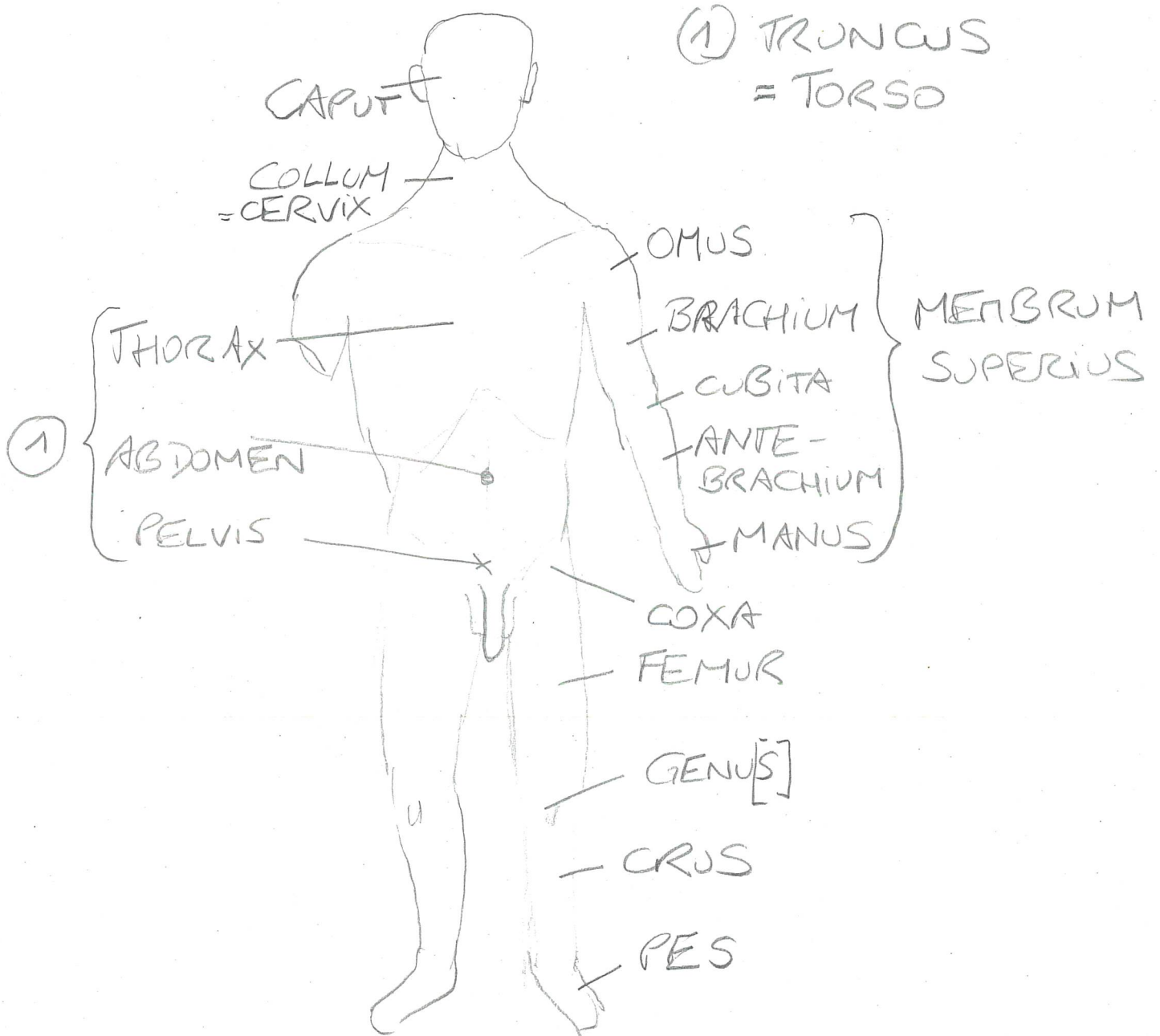
#### A) EBENEN:

- SAGITALE EBENE:  
SF: MEDIAN [SAGITAL] EBENE  
= SYMMETRIEBENE
- HORIZONTALE EBENE  
= TRANSVERSALE EBENE
- FRONTALE EBENE:  
= CORONALE EBENE

#### B) AXSEN:

- SAGITALE AXSE
- TRANSVERSALE AXSE
- VERTIKALE AXSE  
↳ LONGITUDINALE AXSE

# \* KÖRPERTEILE

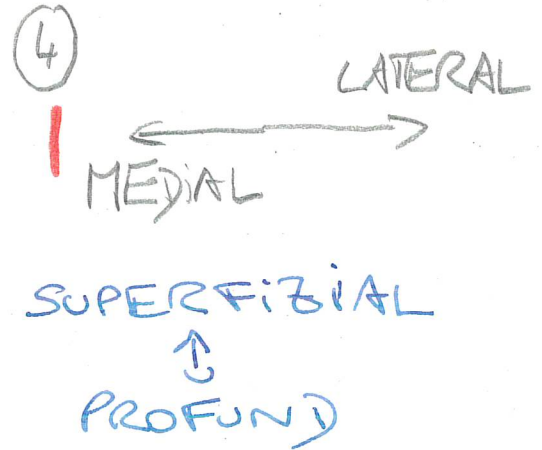
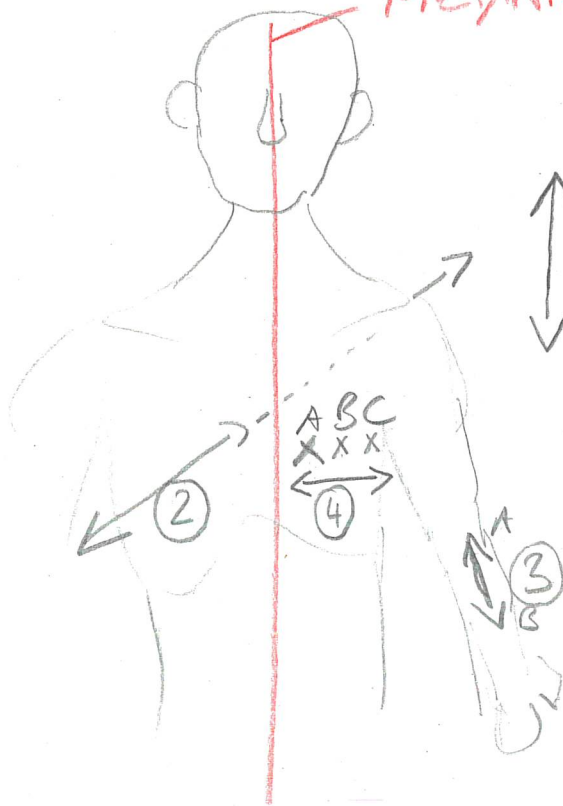


# \* RICHTUNGSBEZEICHNUNGEN:

MEDIANEBENE

DEXTER ←

→ SINISTER



- ① SUPERIOR - INFERIOR  
KRANIAL - KAUDAL
- ② ANTERIOR - POSTERIOR  
VENTRAL - DORSAL
- ③ 3A PROXIMAL - 3B DISTAL

# BEWEGUNGSAPPARAT

ALLGEMEINE GELENKLEHRE  
= ARTHROLOGIE

ARTHROS = ARTICULATIO = GELENK

I) SYNARTHROSE = KONTINUIERLICHES  
GELENK

= UNECHTES GELENK = JUNCTURA

= "HAFT"

II) DIARTHROSE = DISKONTINUIERLICH

= "ECHTES GELENK" = ARTICULATIO

ad I) 2 KNOCHEN + FÜLLMITTEL

A) JUNCTURAE FIBROSAE

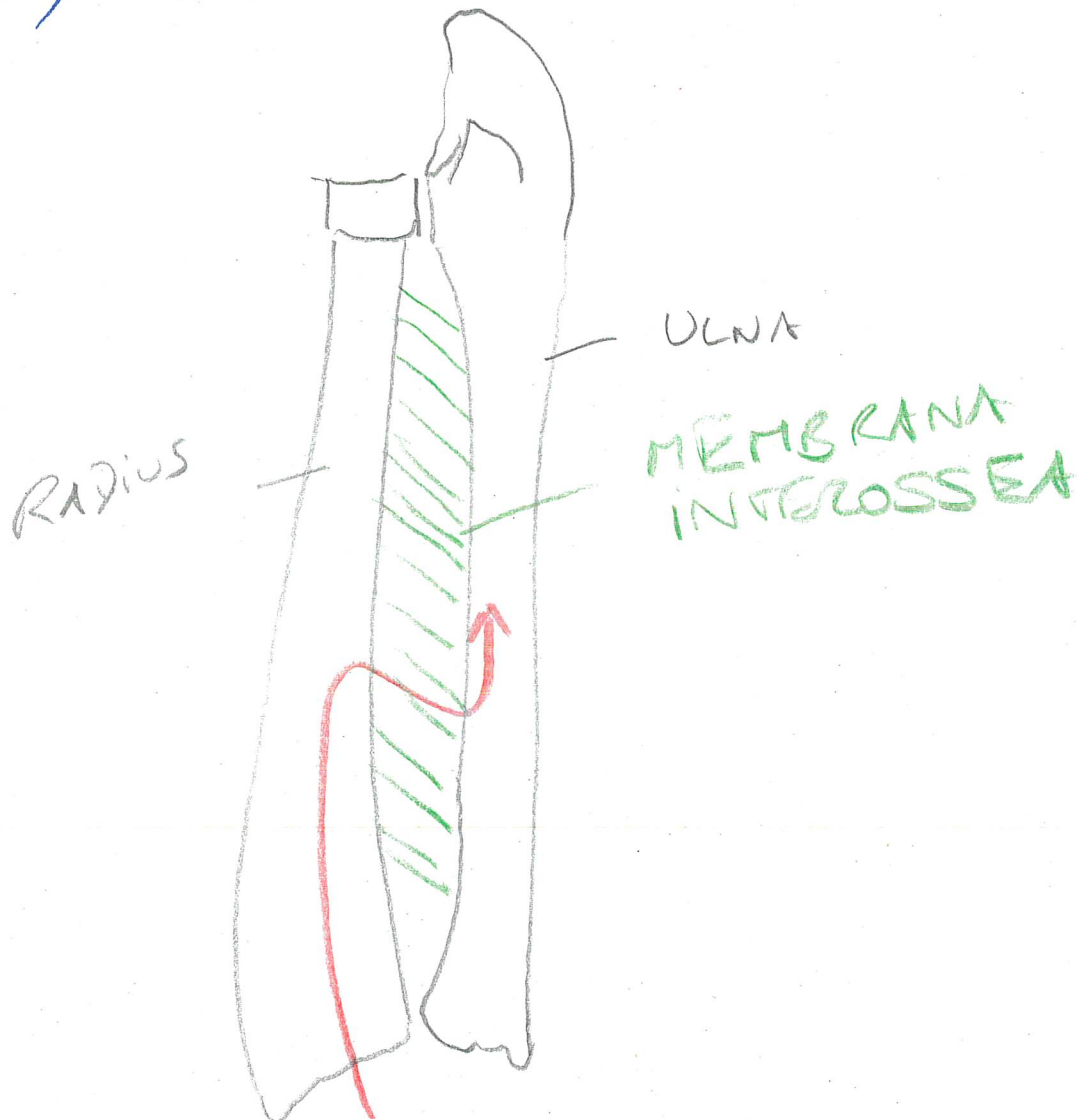
B) JUNCTURAE CARTILAGINEAE

C) JUNCTURAE OSSEAE



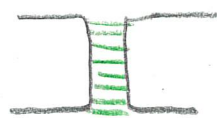
ad I) A)

1) SYNDYESTROSE:



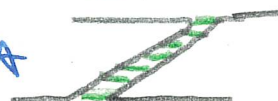
2) SUTURA:

- PLANA:



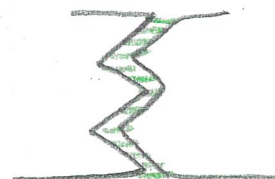
VISCERO-CRANIUM

- SQUAMOSA



BASIS CRANII

- SERRATA



CALVARIA

3) GOMPHOSIS: EINBAPFUNG

I) B)

1) ~~JUNCTION~~ SYNCHONDROSE:  
HYALIN

VK: EPIPHYSENFUGE

SYNCHONDROSIS STERNOCOSTALIS

2) SYMPHYSE: FASERNORPEL

VK: SYMPHYSIS PUBICA

I) C) JUNCTURA OSSEA:

→ A oder B

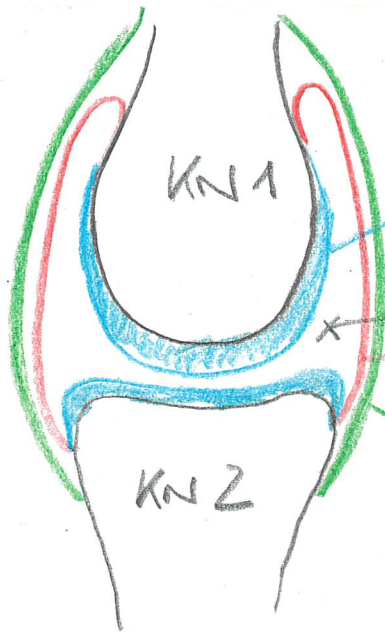
ad II) DIARTHROSEN:

- OBLIGATORISCHE EINRICHTUNGEN

min. 2 KNOCHEN

$n = 2 \rightarrow$  ART. SIMPLEX

$n > 2 \rightarrow$  ART. COMPOSITA



CARTILAGO ART.

CAVITAS ART.

"SYNOVIA"  
↑

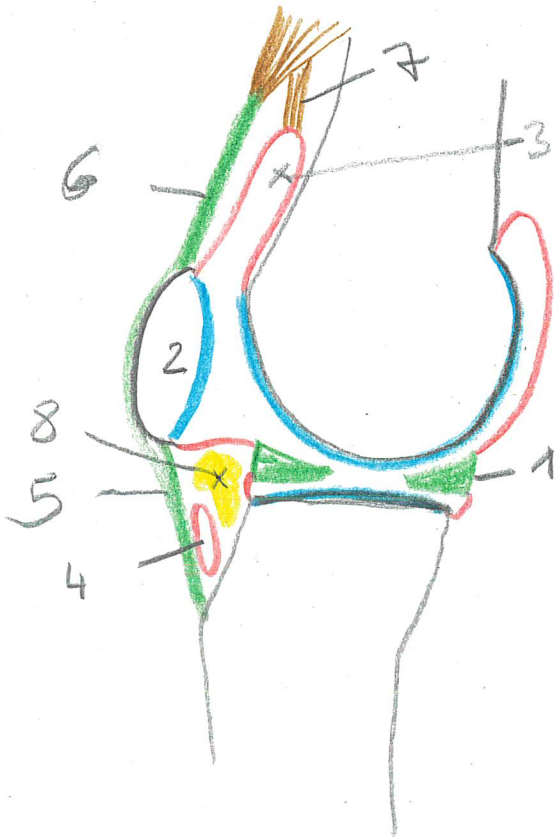
MEMBRANA SYNOVIALIS

MEMBR. FIBROSA

↓  
CAPSULA  
ART.

→ "ARTHROSE"

## HILFSEINRICHTUNGEN:

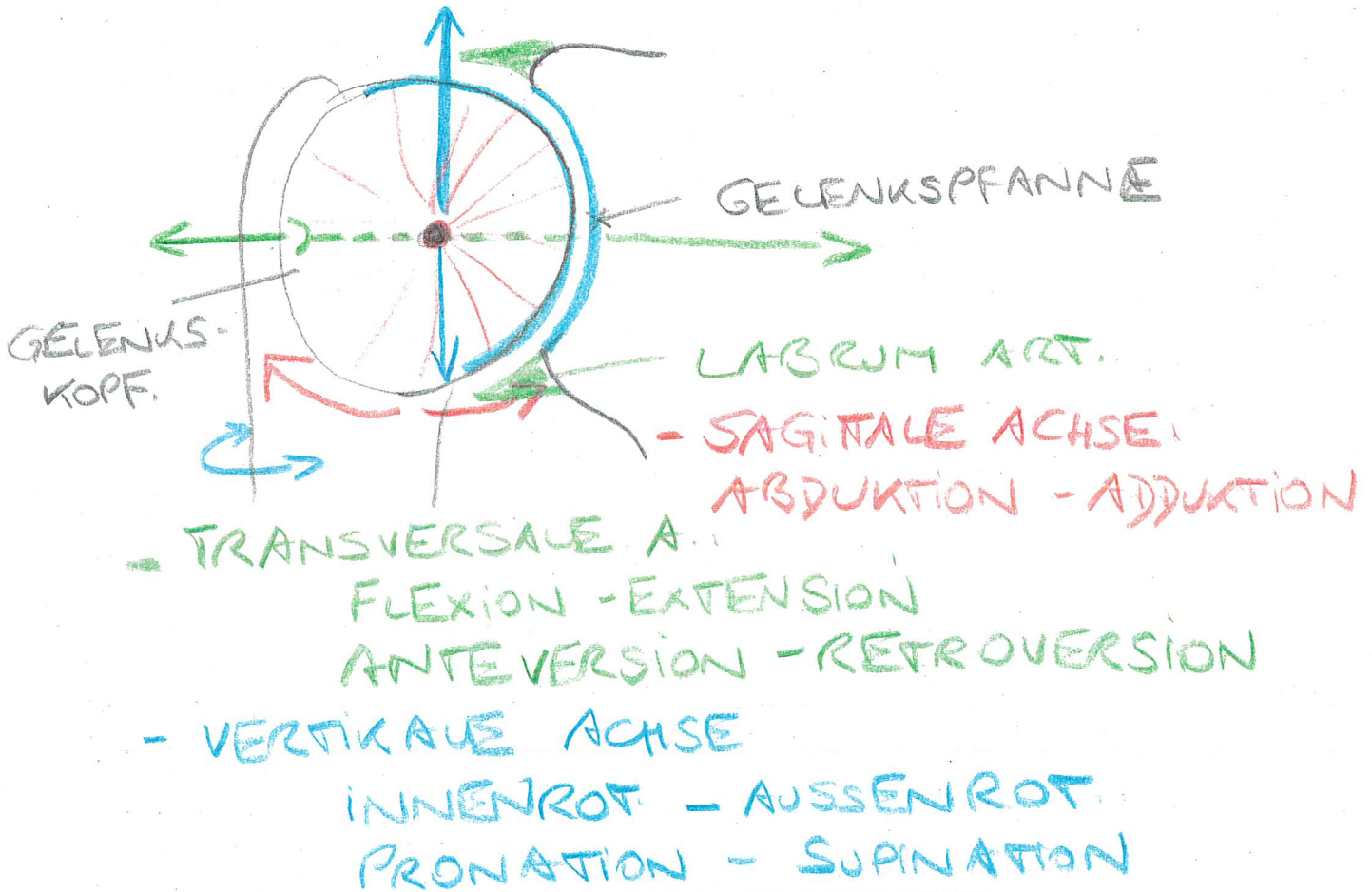


- 1... MENISCUS
- 2... OS SESAMOIDEUM
- 3... RECESSUS
- 4... BURSA [SYNOVIA]
- 5... LIGAMENTUM
- 6... TENDO
- 7... M. ARTICULARIS
- 8... CORPUS ADIPOSUM
- 9... LABRUM / LABIUM
- 10... VAGINA SYNOVIALIS  
TENDINIS

# EINTEILUNG d. DIARTHROSEN

## 1) 3-ACHSIGE GELENKE:

\* ART. SPHAEROIDEA = KUGELGEL.



SONDERBEW: **CIRCUMDUKTION**

VK: ART. HUMERI, ART. COXAE  
ART. HUMERORADIALIS,  
ART. METACARPOPHALANGEA  
II - V

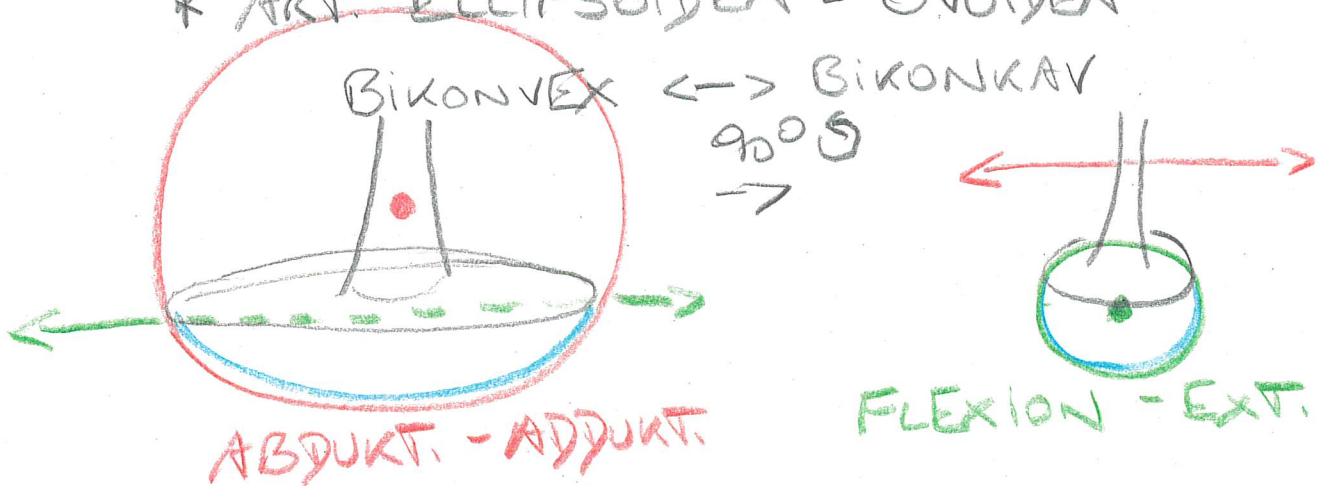
\* ART. PLANA:

↳ ART. ZYGAPOPHYSIAE



## 2) 2-ACHSIGE GELENKE:

\* ART. ELLIPSOIDEA = OVOIDEA



ABDUKT. - ADDUKT.

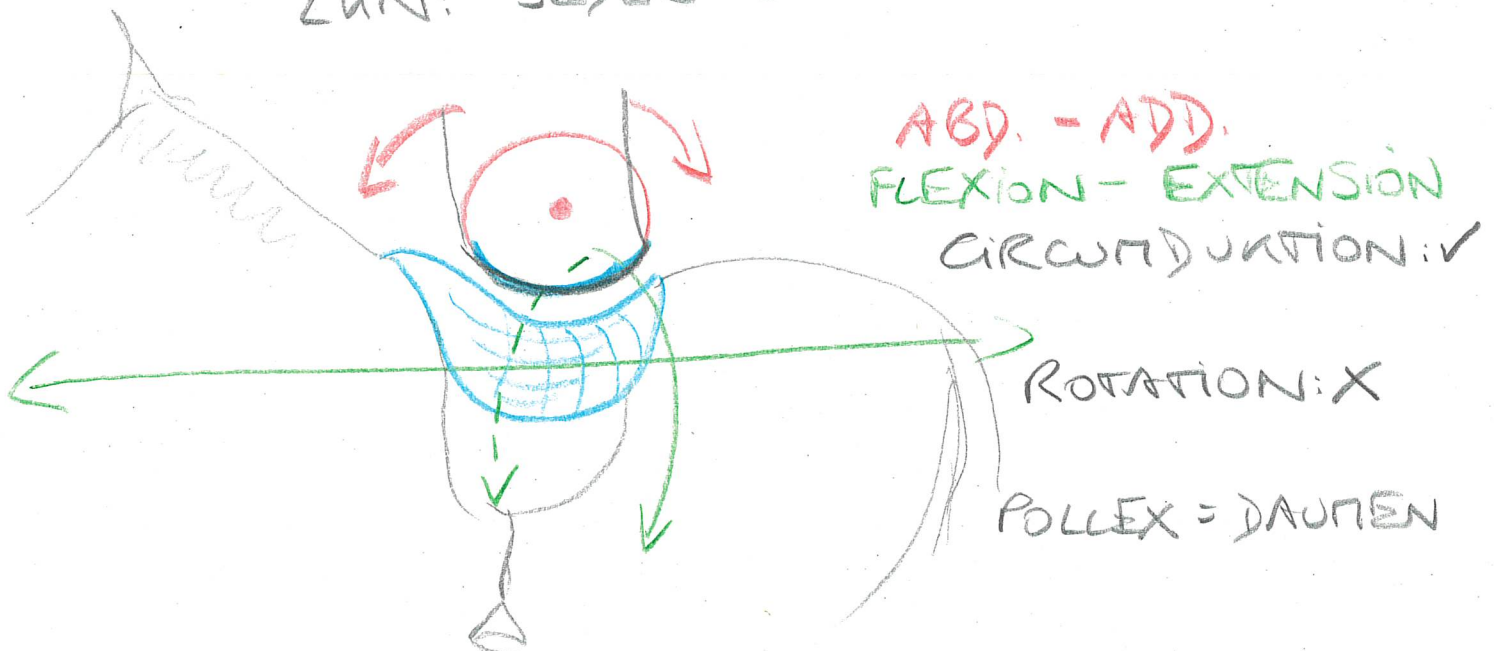
KEINE ROTATION

CIRCUMDUKTION: ✓

VK: ART. RADIOCARPALS ["HANDGEL."]

\* ART. SELLARIS : = SATTELGELENK

ZKN: JEDER IST KONVEXKONKAV

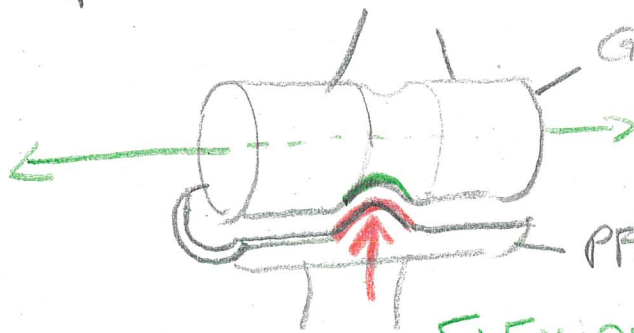


VK: ART. CARPOMETACARPALIS  
Policis  
= DAUMEN SATTELGELENK



3) 1-ACHSIGE GEL:  
ZYLINDERGELENKE

\* GINGLYMUS = SCHARNIERGELENK



GELENKSKOPF = FÜHRUNGS-  
RINNE

PFANNE: FÜHRUNGSLEISTE

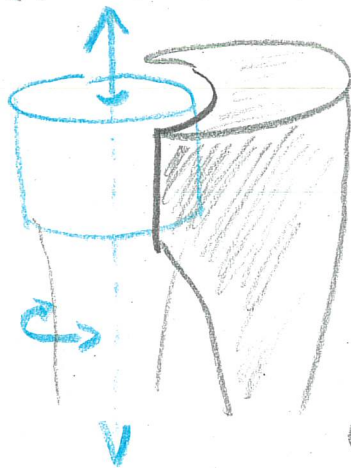
FLEXION - EXTENSION

LIG. COLLATERALE = SEITENBAND

VK: ART. HUMEROULNARIS

ART. INTERPHALANGEA PROX. + DIST.  
II - V

\* ART. TROCHOIDEA: RAD- / ZAPFENGEL.



INNENROT. - AUSSENROT.

VK:

ART. RADIOULNARIS

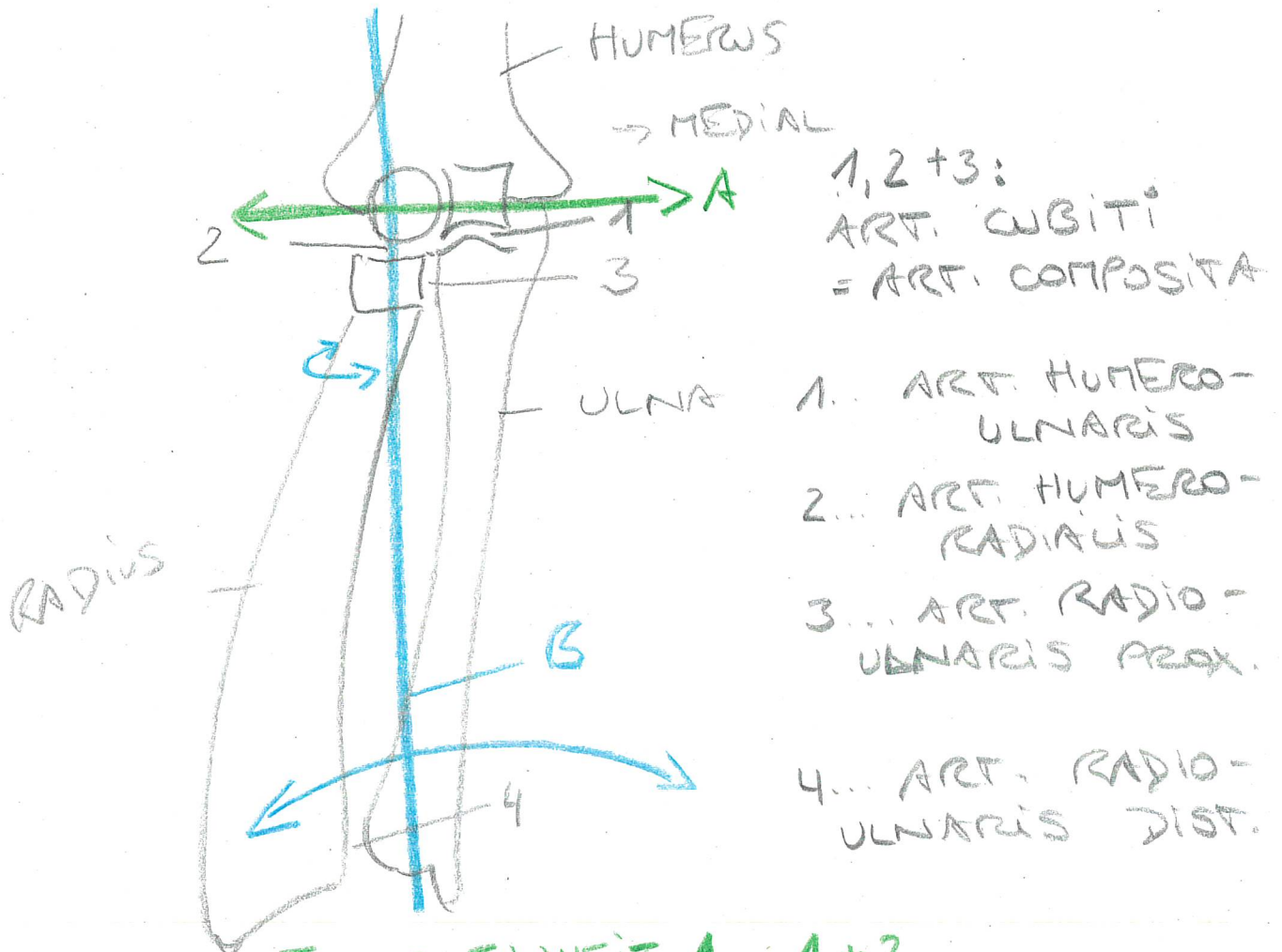
PROX. et DIST.

SONDERFÖRMEN:

\* AMPHIARTHROSE: STRAFFES  
GELENK

VK: ART. SACROILIACA

# FUNKTIONELLE EINHEIT



1, 2 + 3:  
ART. CUBITI  
= ART. COMPOSITA

1... ART. HUMERO-  
ULNARIS

2... ART. HUMERO-  
RADIUS

3... ART. RADIO-  
ULNARIS PROX.

4... ART. RADIO-  
ULNARIS DIST.

FUNKT. EINHEIT A: 1+2  
FLEXION - EXT.

FUNKT. EINHEIT B: 2, 3+4  
PRONATION - SUPINATION

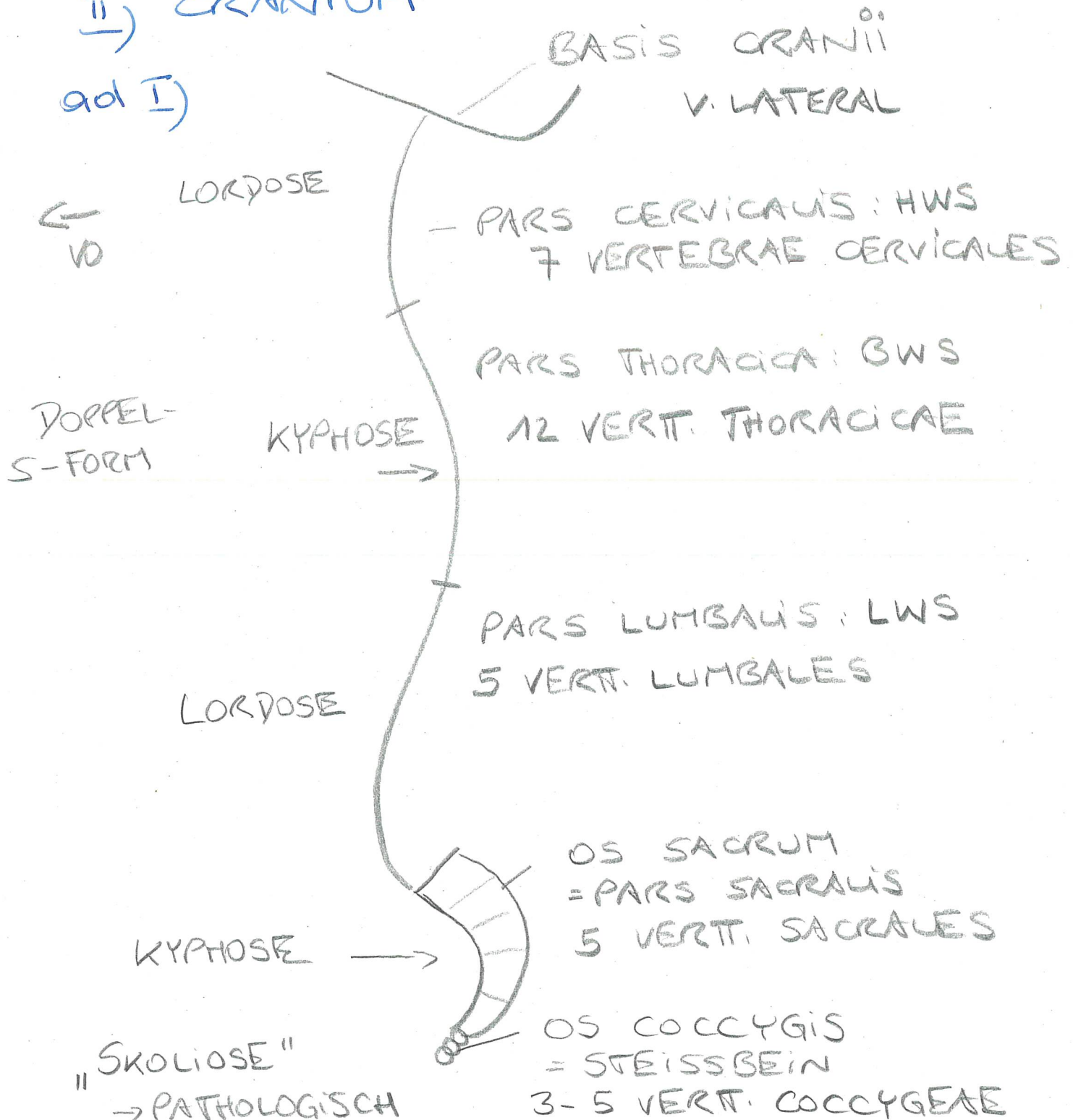
# SPEZIELLE OSTEOLOGIE und ARTHROLOGIE

## ACHSENSKELETT:

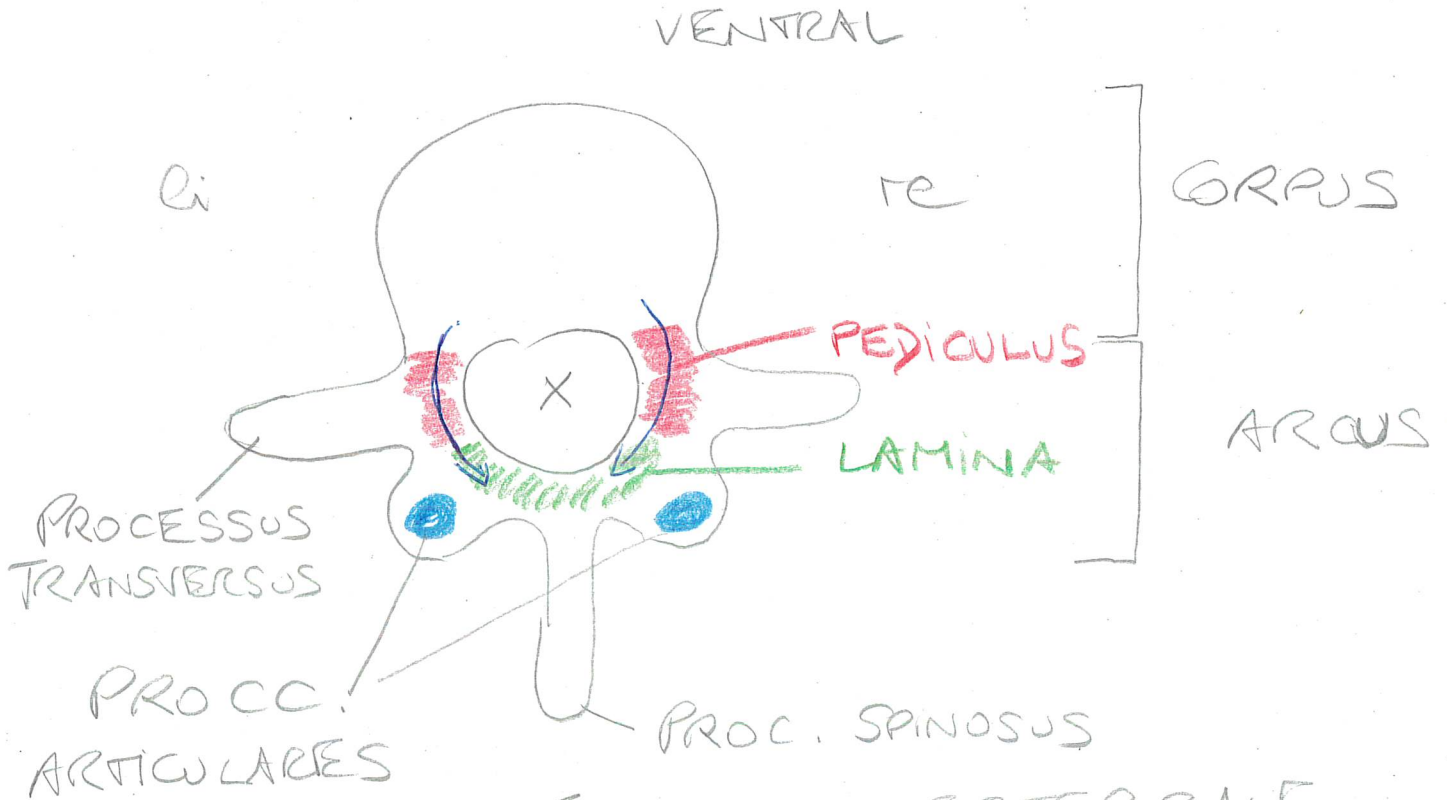
I) COLUMNA VERTEBRALIS

II) CRANIUM

ad I)



VERTEBRA v. KRANIAL



X FORAMEN VERTEBRAL

↳ CANALIS VERTEBRALIS

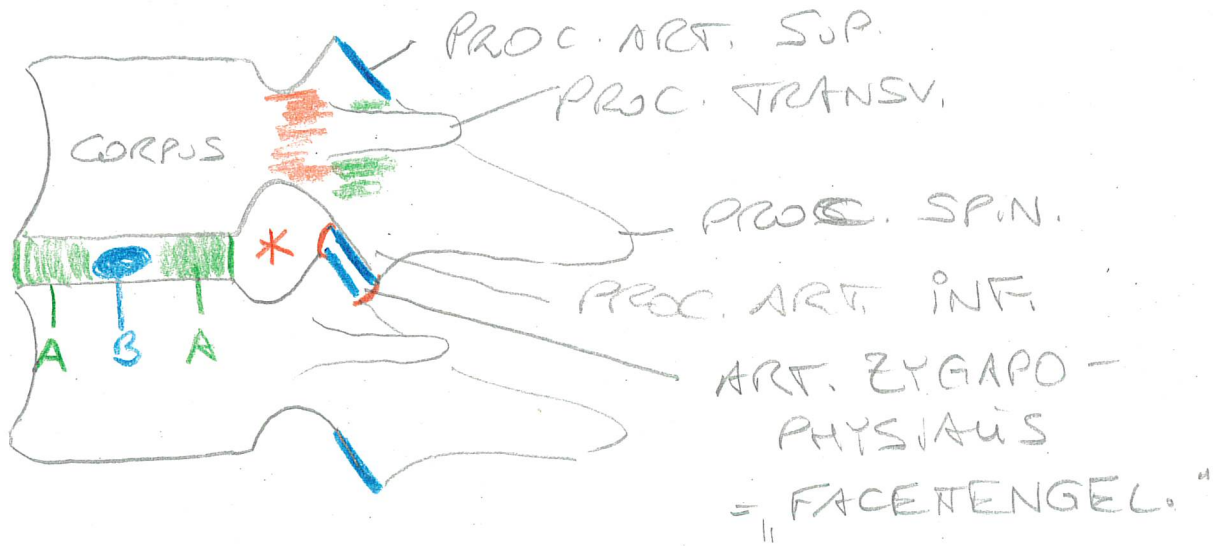
KRANIAL: FORAMEN MAGNUM

KAUDAL: HIATUS SACRALIS

SPINA BIFIDA



2 VERTEBRÆ von LATERAL



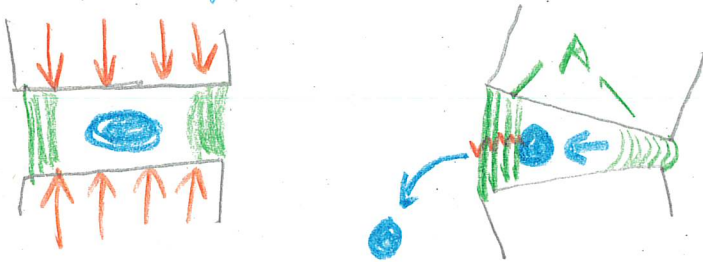
\* FORAMEN INTERVERTEBRALE

↳ N. SPINALIS

DISCUS INTERVERTEBRALIS

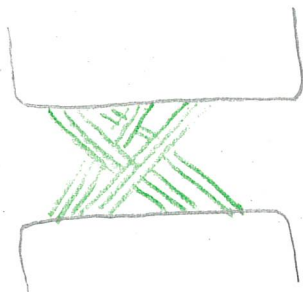
↳ A ANULUS FIBROSUS

↳ B NUCLEUS PULPOSUS



"PROTRUSION"

"PROLAPS"



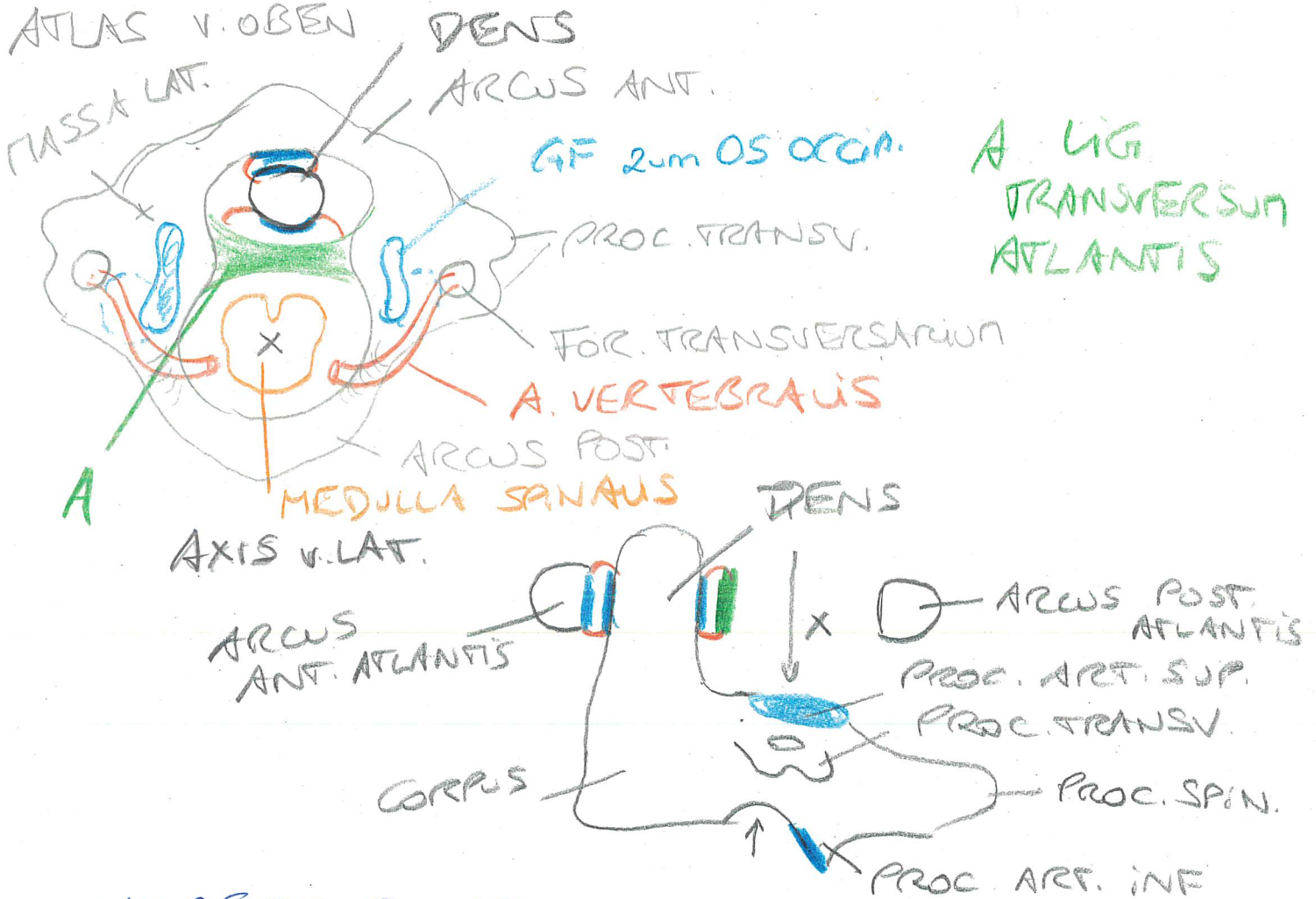


# BESONDERHEITEN I

\* HWS:

- 1. HW: ATLAS  
= TRÄGER

2. HW: AXIS = DREHER



A LIG.  
TRANSVERSUM  
ATLANTIS

## KOPFGELENKE:

① ART. ATLANTO OCCIPITALIS

= BICONDYLENGELENK


INKLINATION - REKLINATION

LATEROPOSITION

② ART. ATLANTOAXIALES MEDIANA  
et LATERALES

ROTATION

HWS

- PROC. UNCINATUS = UNCUS
- FOR. TRANSVERSARIUM **A. VERTEBRALIS**
- PROC. TRANSV.
  - TUBERC. ANT → ehem. RIPPE
  - ↳ TUBERC. POST.
- PROC. SPIN. [C<sub>2</sub>-C<sub>6</sub>]: ZWEIFETEILT
- PROC. SPIN. C<sub>7</sub>  "VERTEBRA" PRONINENS

BWS:

- GELENKE ZU RIPPEN
- TH<sub>3</sub> - TH<sub>7</sub>: SEHR STEILE PROCC. SPIN.



LWS:

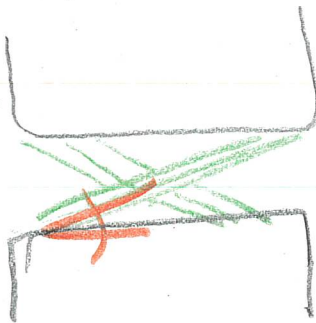
- SEHR MÄCHTIGE CORPORA
- PROCC. SPINOSI: FLÄCHENFÖRMIG
- PROC. TRANSV.: VERKÜMMERT.
- PROC. COSTATUS

# BEWEGUNGEN in der WS: IN FACETENGELLENKEN

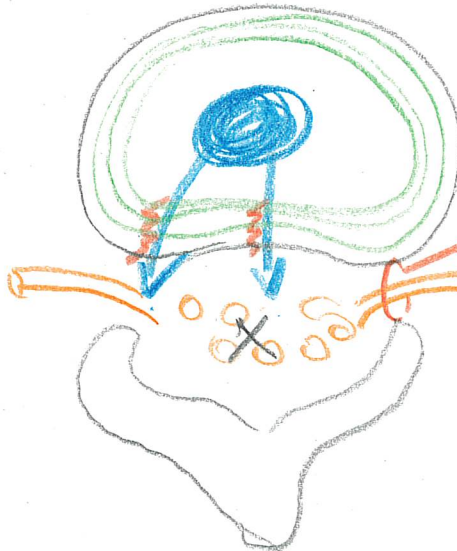
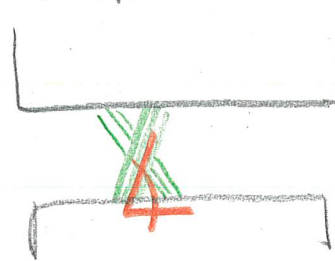
	FLUX. - EXT.	LATERO- POSITION	ROTATION
HWS	++(+)	++	+++
BWS	++	+	+(+)
LWS	+++	+	- 5°

LWS

v. VO



v. Hi



FOR. INTERVERTEBR.  
N. SPINALIS

GELENKE an der WS:

1) ECHTE GELENKE:

ART. ZYGAPOPHYSIALIS

2) JUNCTURAE CARTILAGINEAE:

→ SYMPHYSE · DISCUS INTERV.

3) SYNDESMOSEN: BÄNDER

CRANIUM:

A) NEUROCRANIUM:

↳ 1) CALVARIA

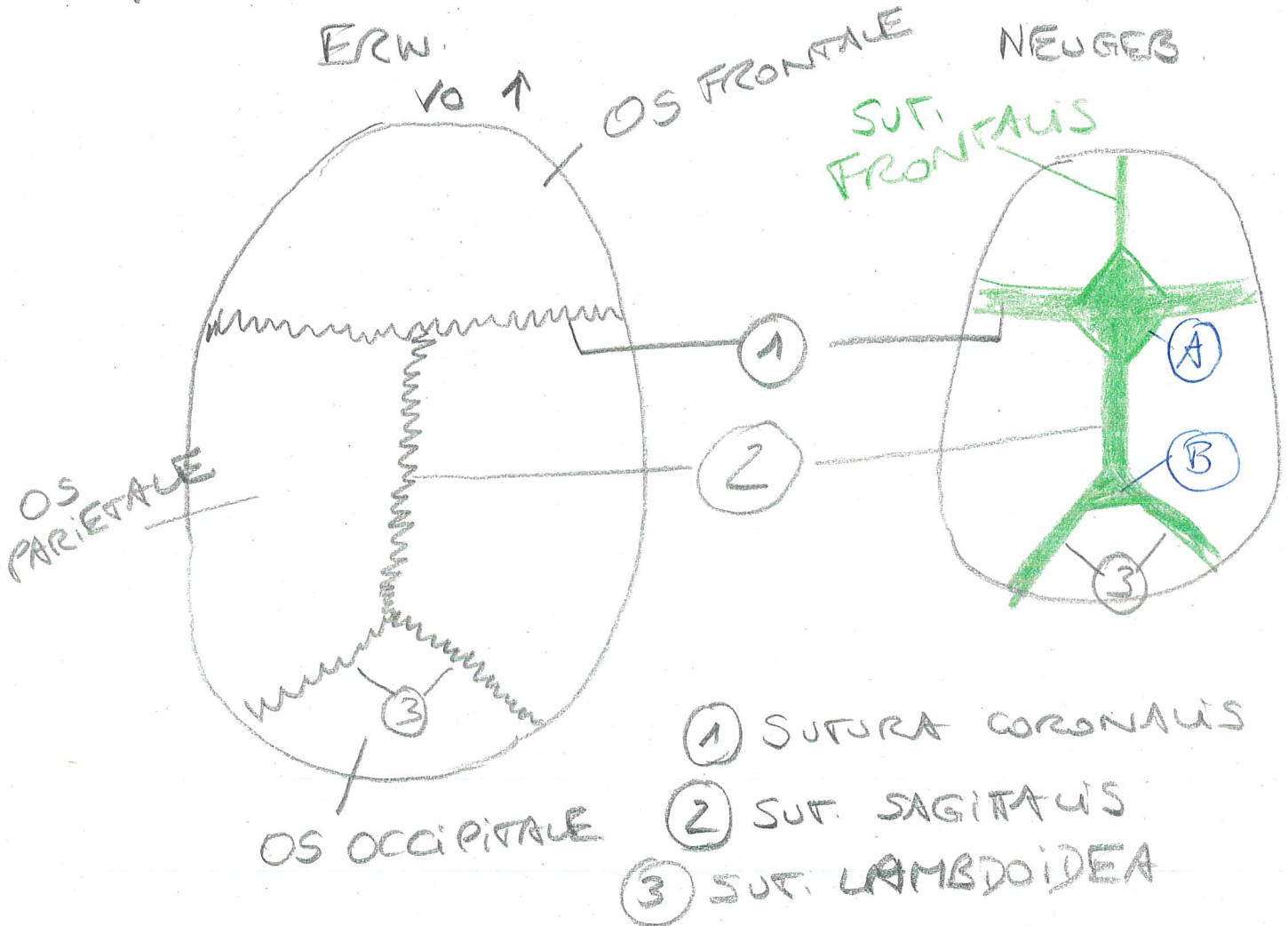
↳ 2) BASIS CRANII


B) VISCEROCRANIUM




# CALVARIA

V. OBEN

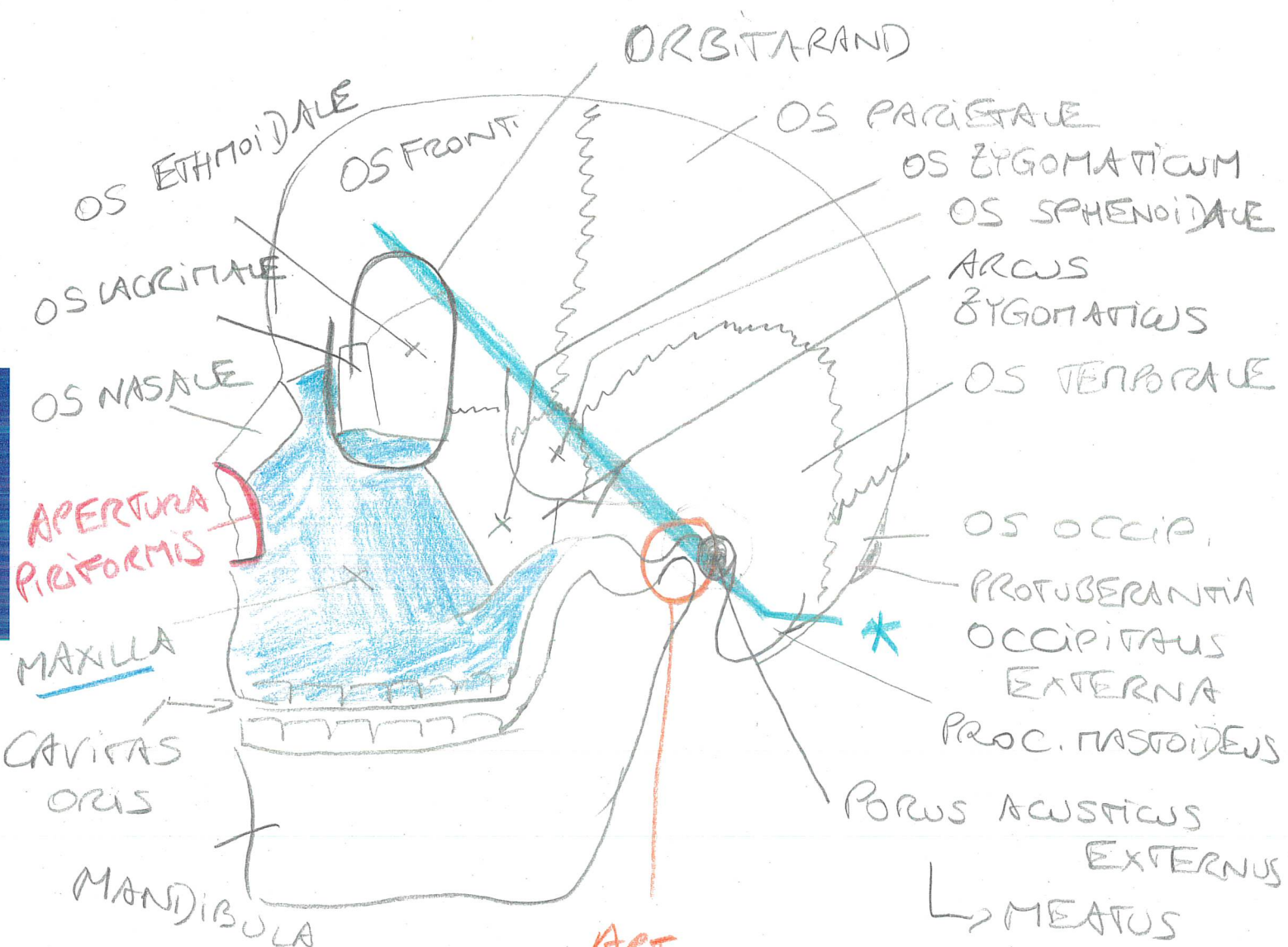


A:  FONTANELLA / FONTICULUS  
ANT. / MAIOR

B:  FONTANELLA / FONTICULUS  
POST. / MINOR

SINUS DURAE MATRIS

NORMA LATERALIS



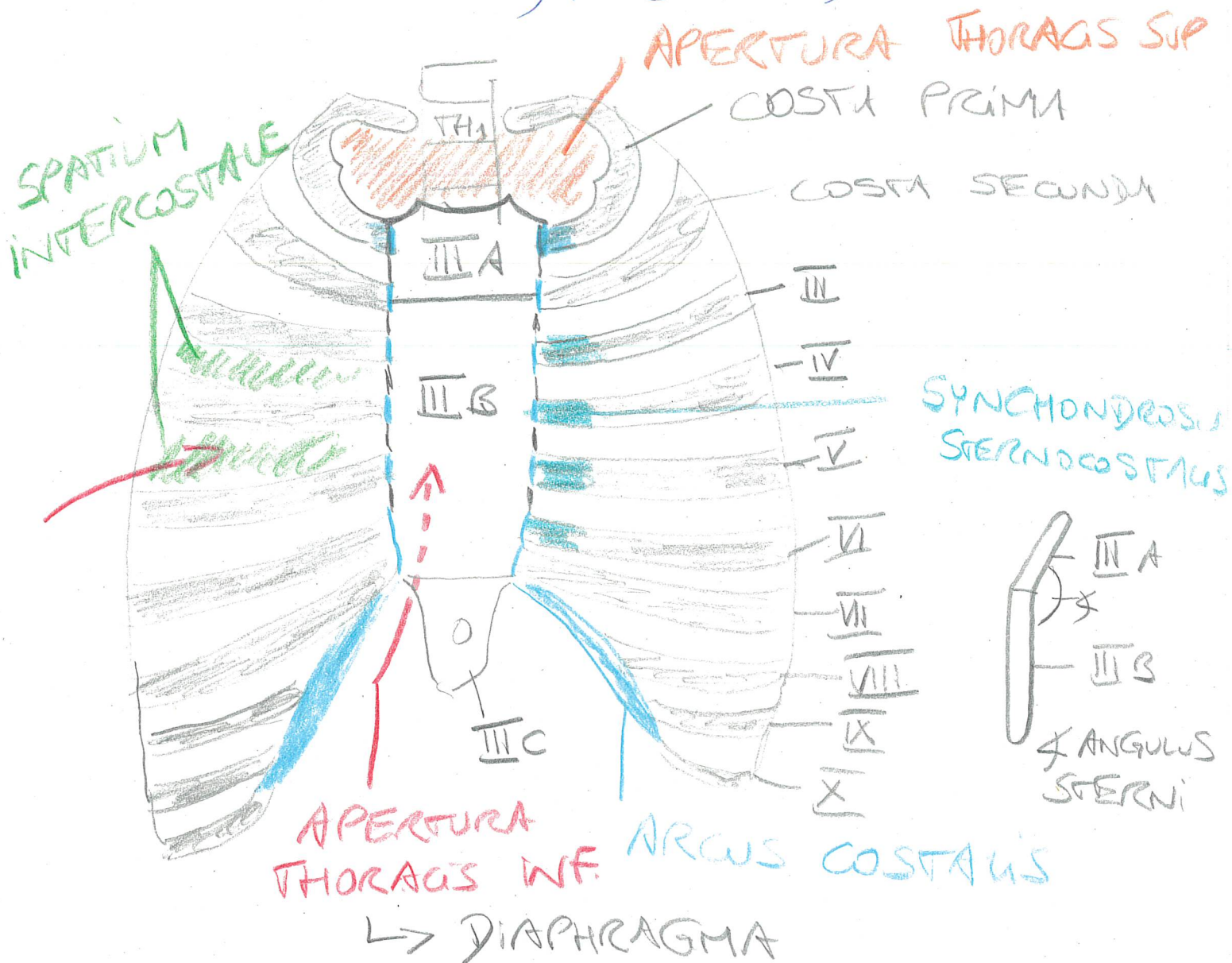
ART. TEMPOROMANDIBULARIS

\* BASIS CRANII

"LE FORT"

# THORAX: BRUSTKORB

- I) 12 VERT. THORACICAE
- II) COSTAE: 12 RIPPENPAARE
  - A) COSTAE VERAE: 7
  - B) COSTAE SPURIAE: 3
  - C) COSTAE FLUITANTES: 2
- III) STERNUM:
  - A) MANUBRIUM
  - B) CORPUS
  - C) PROC. XIPHOIDEUS





# Gelenke im THORAX:

## A) COSTO VERTEBRALGELENKE

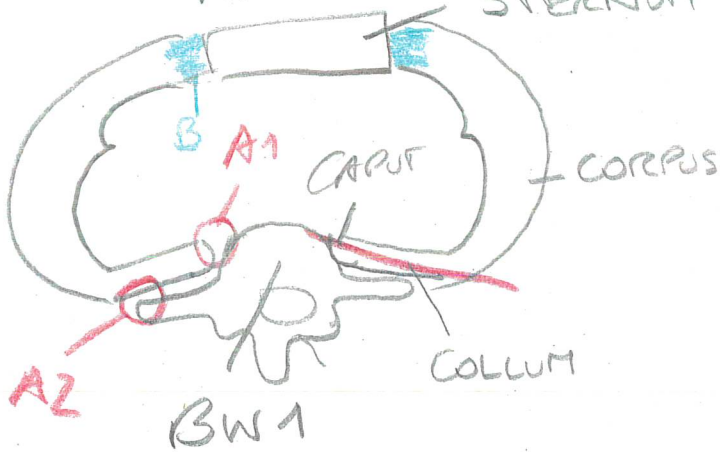
1) ART. CAPITIS COSTAE

2) ART. COSTOTRANSVERSARIA

## B) SYNCHONDROSIS STERNOCOSTALIS

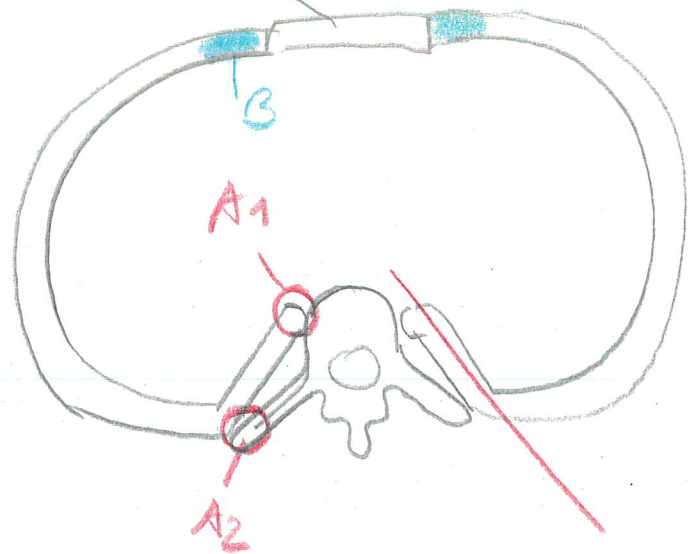
OBERE THORAX-

APEKTUR STERNUM

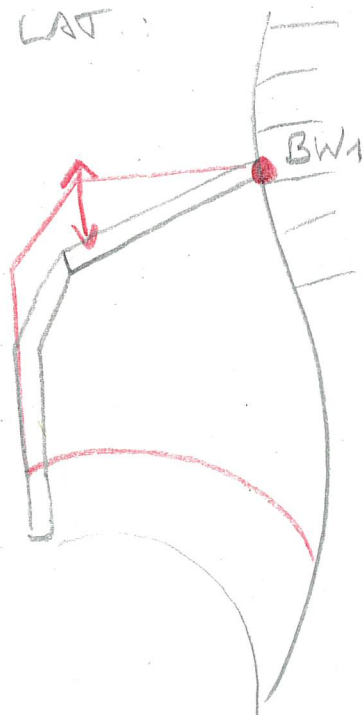


MITLERER THORAX:

STERNUM



V. LAT.



V. VO

