spaces at the scapular region (posterior aspect):
quadrangular space and triangular space

1-quadrangular space:
borders:-
1-superior border is teres minor
2-inferior border is teres major
3-lateral border is humeras
4-medial border is long head of triceps muscle

a locate structure through it:
1_axillary nerve
2-posterior circumflex humeral artery (this artery winding around the humerus and it branch from axillary artery)
3-posterior circumflex vein

2-triangular space:
have triangular shape

borders:
1-superior is teres minor
2-inferior is teres major
3-lateral is long head of triceps

Note: long head of triceps pass between teres major and teres minor
Note: Triceps divided the space of scapular region into lateral one is quadrangular space and medial one triangular space

The contents of this space:

1. Circumflex scapular artery (which subbranch of the axillary artery)
2. Circumflex scapular vein

Note: Below the clavicle is pectoralis major and then below the pectoralis major is pectoralis minor and then below them is the skin of the axilla

In deep skin then under it is superficial fascia then under it is deep fascia then under it is pectoralis major

Note: There is a space between the clavicle and pectoralis minor.

There is a connective tissue to extend between the clavicle down and surrounding the pectoralis minor then extend down to base of the axilla

Clavipectoral fascia:

It is a strong sheath of connective tissue that extend from the clavicle (anterior and posterior surface of the clavicle) in medial surrounding the subclavius then continues by two layer:

1. Anterior
2. Posterior

These two layer unit to form clavipectoral fascia

Then at the superior border of pectoralis minor the fascia will slit again around pectoralis minor to hold the pectoralis minor so become anterior layer and posterior layer then at inferior border will unit again (form suspensory ligament)

Then attached to deep fascia and skin of axilla

The part below it is suspensory ligament which suspend skin of the armpit
this skin under it is deep fascia because when we adduct the limb the skin of your axilla redondance

the skin of the axilla elevate by the action of suspensory ligament

so clavipectoral fascia extending between clavicle and base of axilla to strengthen the weaker area

clavipectorla fascia between clavicle and superior boarder of pectoralis minor there is a structure passing thruogh it :

1-artery
2-vein
3-lymph
4-nerve (lateral pectoral nerve)

Note :in blood circulation there is artery and vein

the vein divided into :

1-superfascia vein ( does not adjacent to artery )

2-deep vein (is adjacent to arteries )

note : each upper and lower limb have two superficial vein to drain there superficial structure

superficial vein of the upper limb are two in number :

1-lateral one is called cephalic vein

2-deep medial one is basilic vein
**note**: when you look at the dorsal aspect of your hand is blue colors vein which is a network of vein called dorsal venous arc

**cephalic vein**: start from lateral side of the dorsal venous arc then pass on the lateral side of the forearm then pass anterior to the elbow (which called cubital fossa) at it two vein are connecting with each other through a vein medial cubital vein which commonly used to take a sample of blood or gave fluid and drags to blood) then continue on the lateral part of the upper arm then pass between two muscle: 1- deltoid lateral 2- pectoralis major then it will end into **axillary nerve**

**note**: deep artery in limbs have veins and each deep artery have two veins

**note**:deep artery usually between this two vein

**note**: axillary artery continue below as brachial artery

**basilic vein**: start from medial side of forearm continue up anterior to the elbow until to reach to at the madial of the upper arm then it unit with deep veins of brachial artery (brachial artery vein)

basilic vein and vein of brachial artery form the axillary vein at medial of the upper arm it will send up in upper arm then in axilla and it terminate at the outer border of the first rib at this point it will reserves cephalic vein then passes below the clavicle to be called **subclavian vein**

**subclavian vein**: is direct continuation of axillary vein and then continue to right atrium

**note**:some vein which is very important(because we can feel it) and also we can give the patient drags in it:

1- superfascial 2- cubital vein
3- cephalic vein 4- basilic vein
note: the child in hospital the fluid insert in his head because this vein is clear (superfascial) but in some part of our body we can not because there is a fat so it is difficult to see the vein

note: when person burn his hand there is difficult to see his vein to examine his pulse on the burned area

note: when one have inflammation in axilla this involve the arteries. veins. nerve. and lymph

axilla (armpit):

it is a pyramidal space located between a lateral side of the chest and upper part of the arm and it has apex at the root of the neck and base by the skin and superficial fascia and 4 walls

this provide passage way for:

1-nerve
2-arteries
3-veins
4-lymph
from root of the neck to upper limb

note: when one have inflammation in axilla this involve the arteries. veins. nerve. and lymph

Apex:

is triangular in shape bonded by:

1-anteriorly by clavicle
2-posteriorly by scapula
3-medialy by first rib
the apex is strong to protect these vital structure which passing through it and it located on the root of the neck

**Base:** is mobile

**borders:**

1- anterior by anterior axillary fold (from lower border of pectoralis major)

2- posterior by posterior axillary fold (from latissmuse dorsi muscle and teres major)

3- medially by chest wall

**note:** anterior axillary fold is important to examine if there is a problem in breast some time the breast infection so we should feel the anterior axillary fold

**horizontal section of axilla walls :**

1- anterior wall

2- posterior wall

3- lateral wall (is narrow)

4- medial wall (curved)

**anterior wall** : form by soft structure (3 muscle and fascia)

1- subclavius

2- pectoralis minor

3- pectoralis major

4- clavipectoral fascia

**posterior wall** : form by three muscle from superior to inferior

1- subscapularis 2- teres major 3- latissmuse dorsi
**Note:** clavicle is irregular long bone (each long bone it has inside medial cavity there is bone marrow cavity but clavicle does not have. clavicle only contain spongy bone tissue cancellar. long bone. ribs is flat bone

**Medial Wall:** is curved and form by upper 4 or 5 ribs covered by serratus anterior and between ribs space called intercostal space

**Lateral Wall of Axilla:** is narrow and forms by 1- intertubercular groove (biceptal groove) which containing 2- the long head of biceps muscle

3- coracobrachialis muscle (extend between coracoid process and brachial)

**Note:** axilla is passage way for vital structures

**Contents of the Axilla:**

1- axillary artery
2- axillary vein
3- axillary sheath
4- axillary lymph nodes
5- brachial plexus of nerves (network of nerve)

**Note:** axillary artery and axillary vein they surrounded by tubular sheath of connective tissue

**Note:** at the end of the first rib is axillary artery

**Axillary Artery:** is direct continuation of subclavian artery

Start at ..........the outer boarder of the first rib

Then passing through the axillary sheath then passing below pectoralis minor then end at ..........the lower border of teres major (then continue as a brachial artery)
pectoralis minor divided the axillary artery into three parts:

1. above
2. behind
3. below

Note: Each of these divisions gives branches according to its number:

First part gives .... one branch ......hight(superior)thoracic artery

Second part.......two branches......1-thoraco acromial artery 2-lateral thoracic artery

Third part ..........three branches.......1-subscapular artery 2-anterior circumflex humeral artery 3-posterior circumflex humeral artery

Note: On the outer border of the first rib subclavian artery

Note: Anterior circumflex humeral artery and posterior circumflex humeral artery they unit around the surgical neck of the humeras

Note: Fractured in surgical neck usually lead to large amount of bleeding because injury anterior or posterior circumflex humeras artery

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Please check the slides and the pictures in the book