

# Anatomie chirurgicale de la paroi de l'abdomen

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CHU MED VI - MARRAKECH

# Introduction

- Structure cutanéo-musculo-aponévrotique
- Antéro-latéral → Corset interne
- La partie postérieure étant occupée par le rachis thoraco lombaire.
- Différents facteurs affecte la paroi : âge, sexe, grossesse, obésité
- Intérêt :
  - Origine de plusieurs lambeaux en chirurgie réparatrice
  - Plusieurs techniques chirurgicales permettent de restaurer l'anatomie de base.

# Plan

I- Introduction

II- Rappel

    1- Anatomie de surface

    2- Anatomie descriptive

III- Anatomie chirurgical

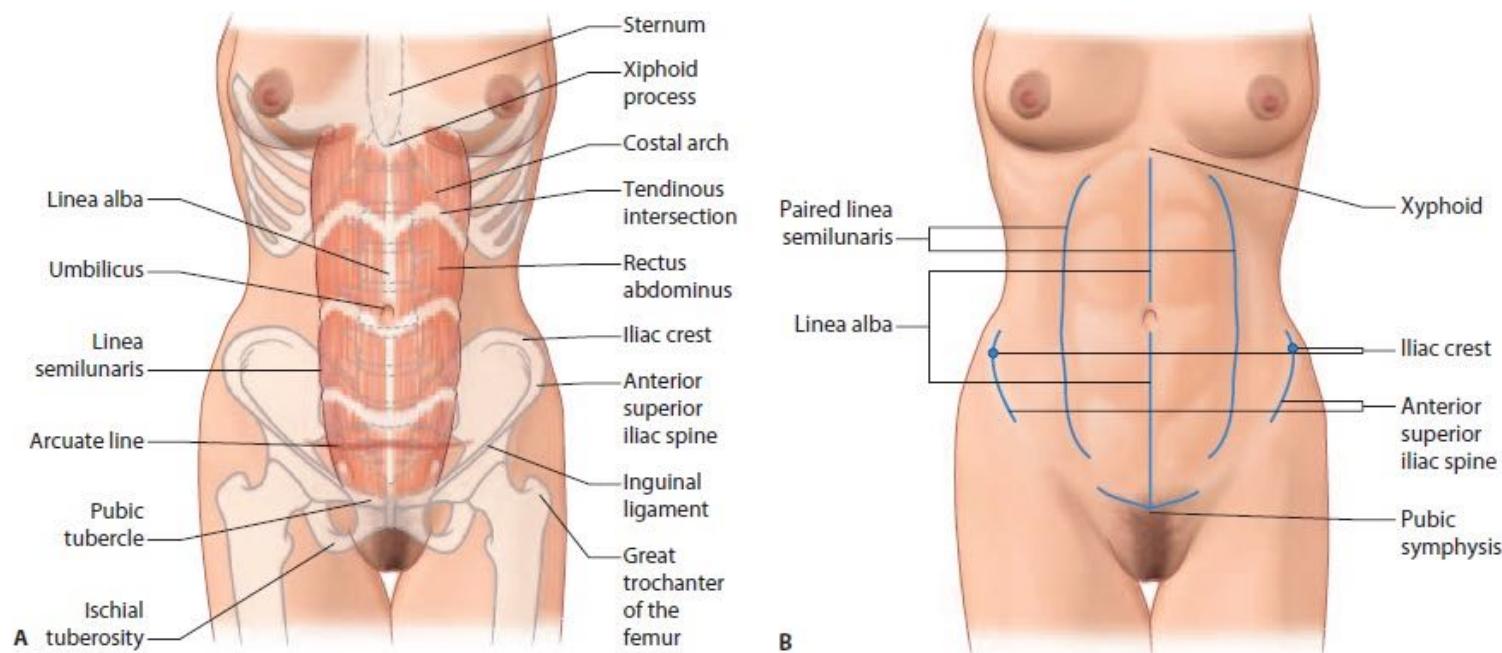
    1- Plans superficiels

    2- Plan musculoaponévrotique

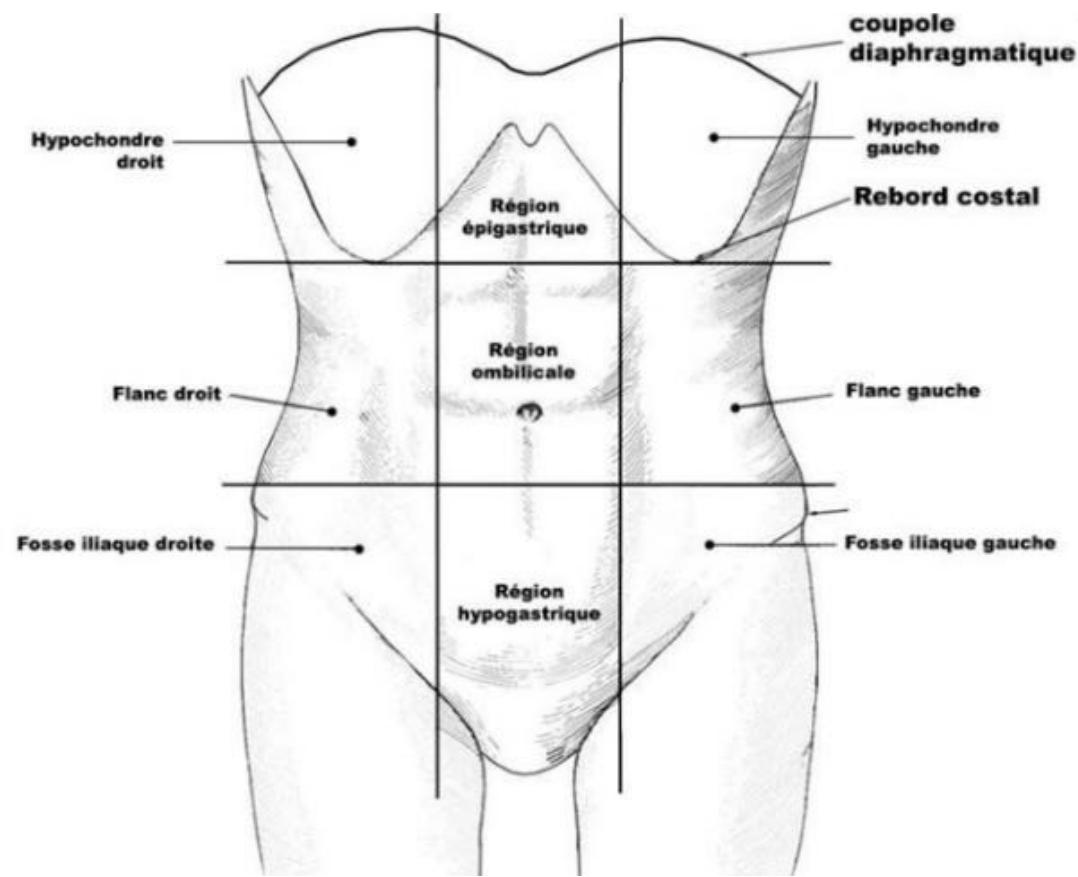
VI- Anatomie artistique

V- Conclusion

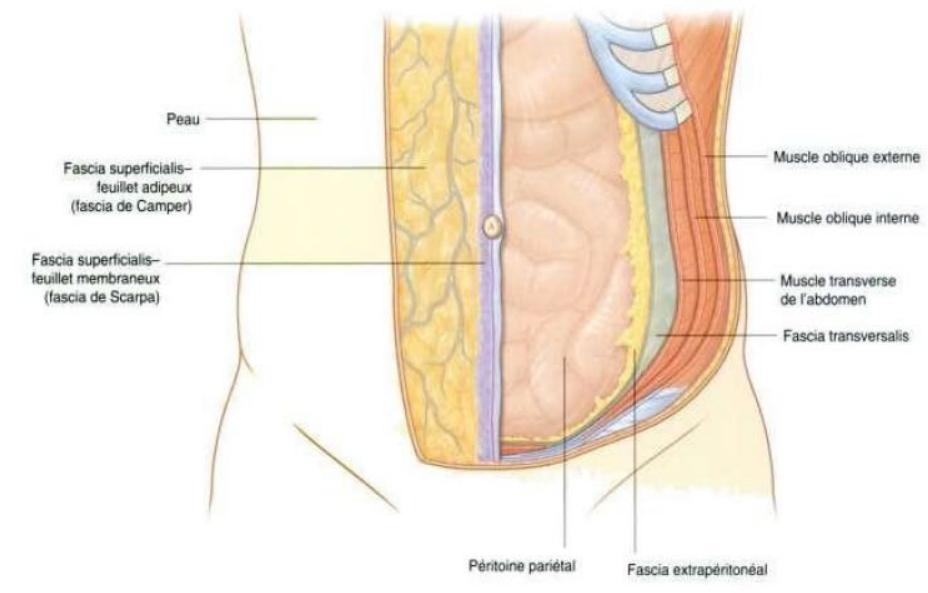
# Anatomie de surface

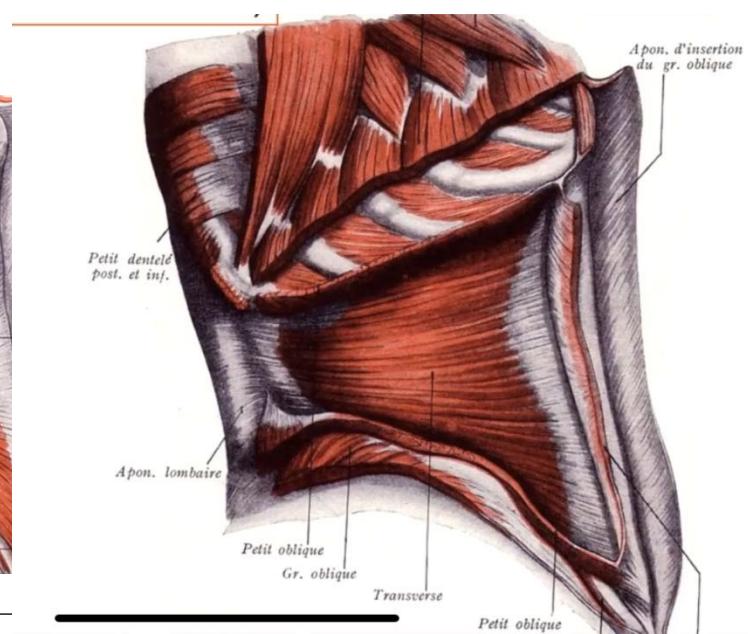
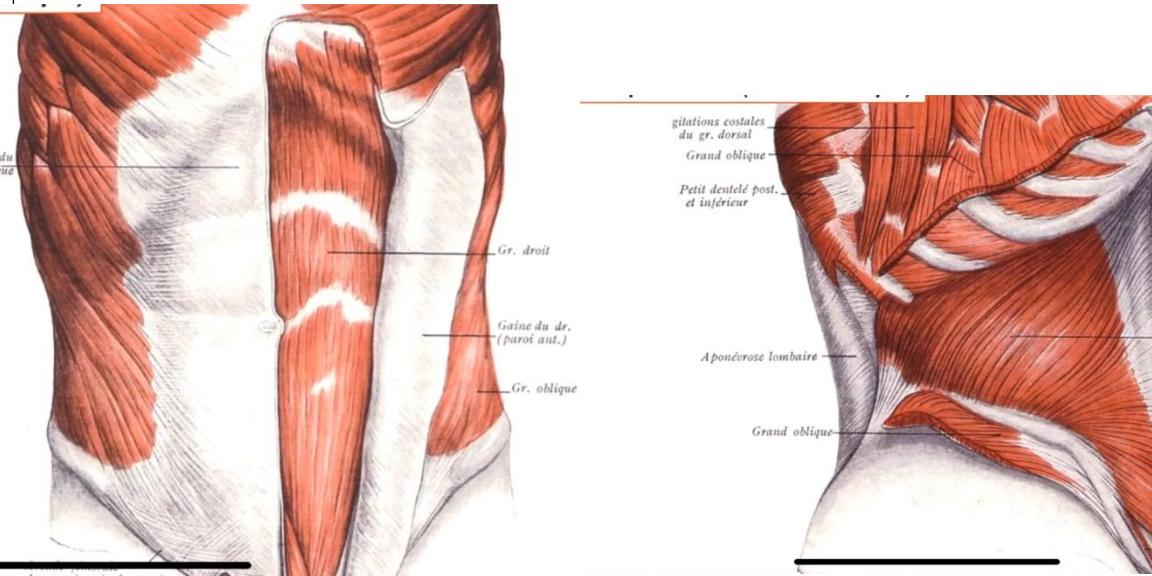
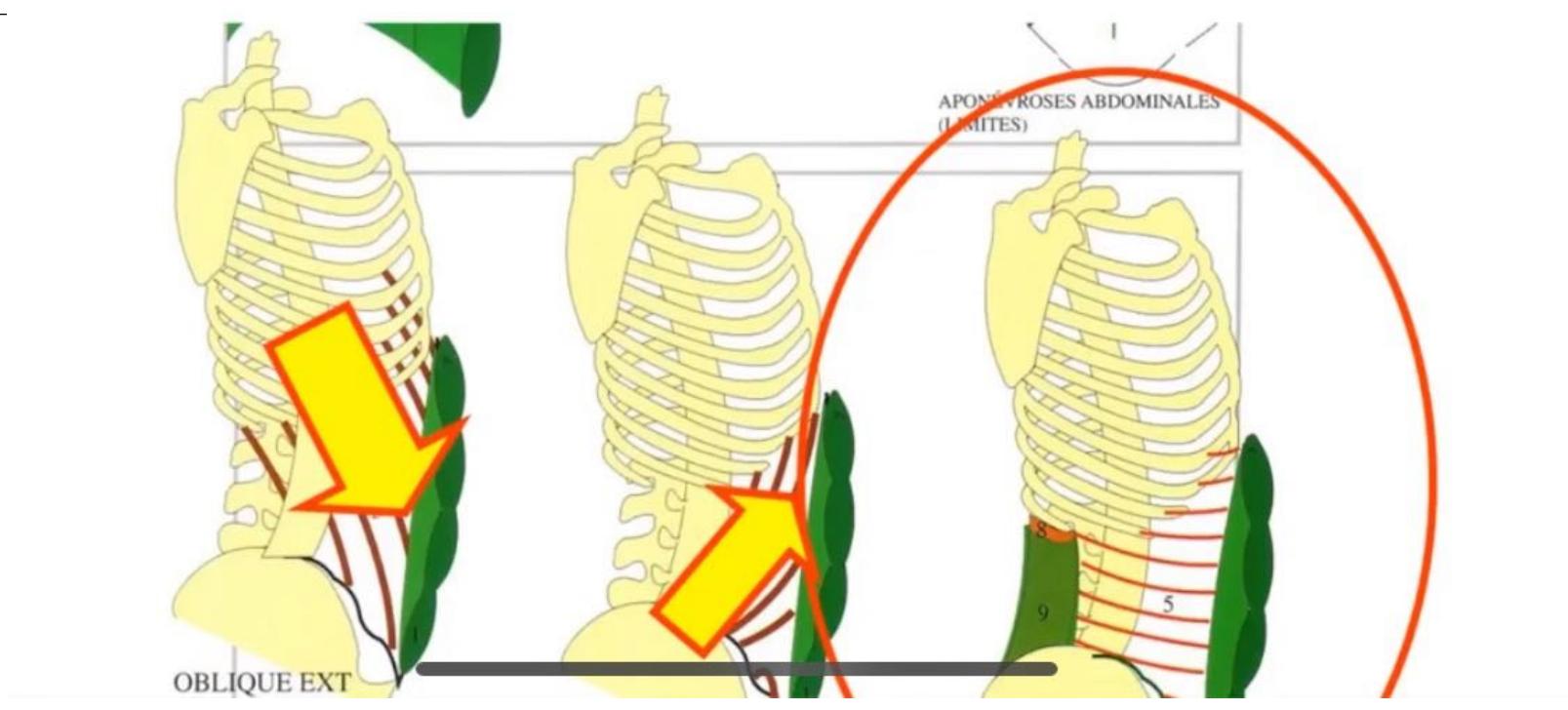


**Fig. 2.1 A, B** Topographically, a handful of bony and soft tissue landmarks can be identified. The bony landmarks include the xiphoid, pubic symphysis, the anterior superior iliac spine, and the iliac crest. These landmarks are useful in orienting and ensuring the symmetry of the transverse incision in abdominoplasty procedures as well as during myofascial plication and umbilical inset.



# Anatomie descriptive





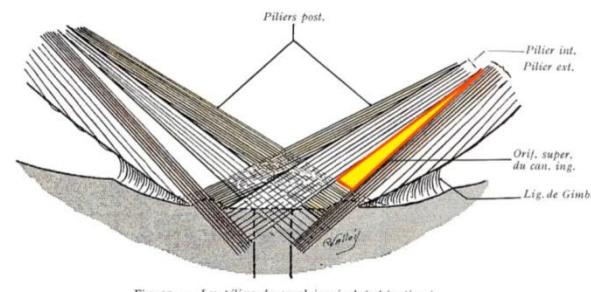
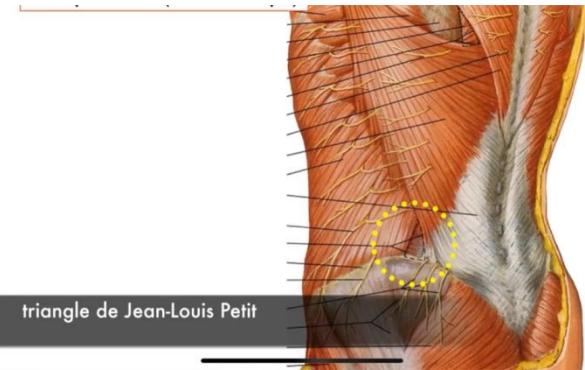


Fig. 55. — Les piliers du canal inguinal (schématique).

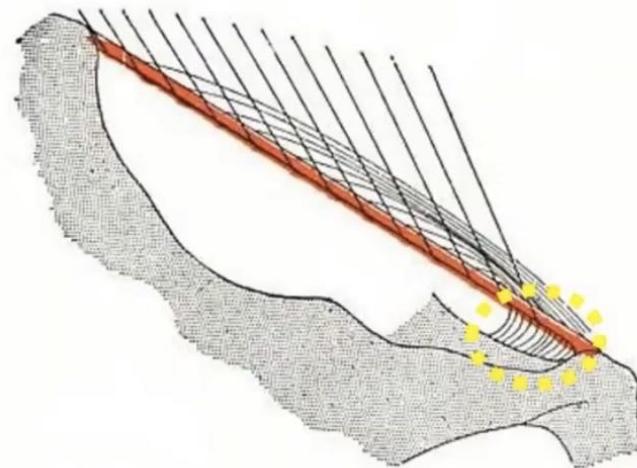
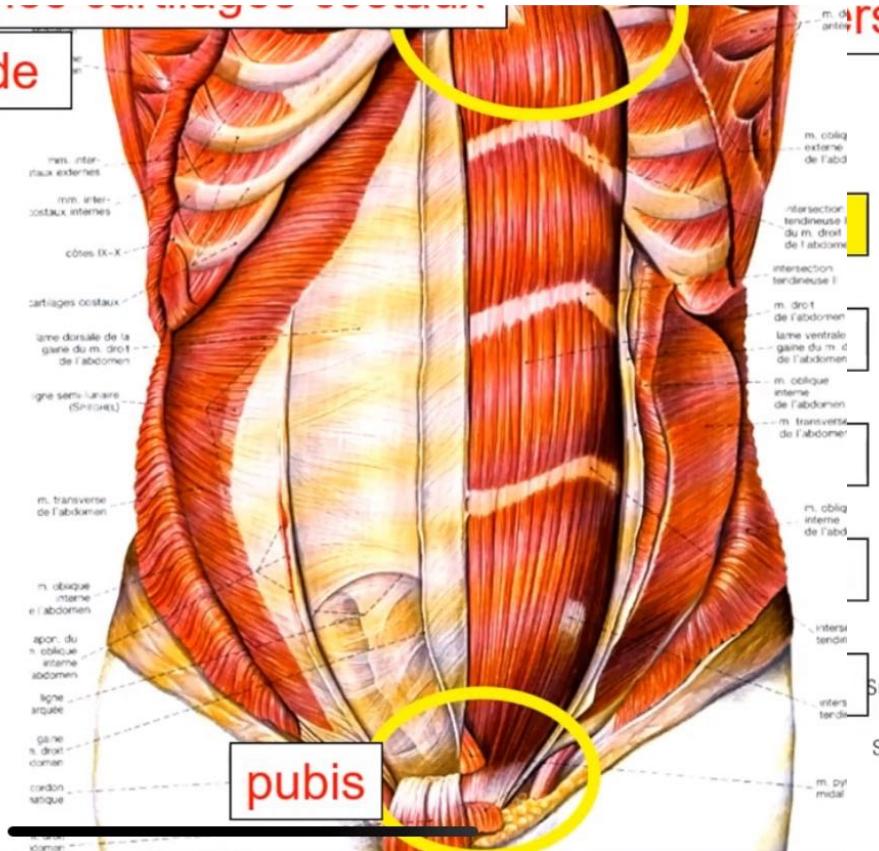
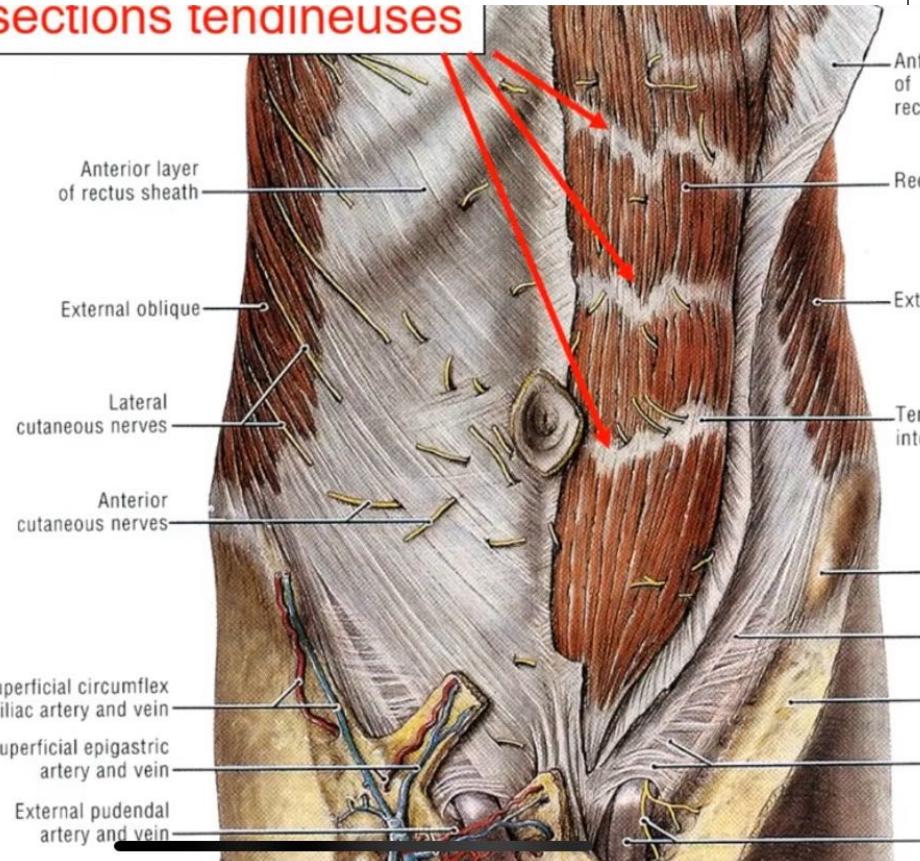


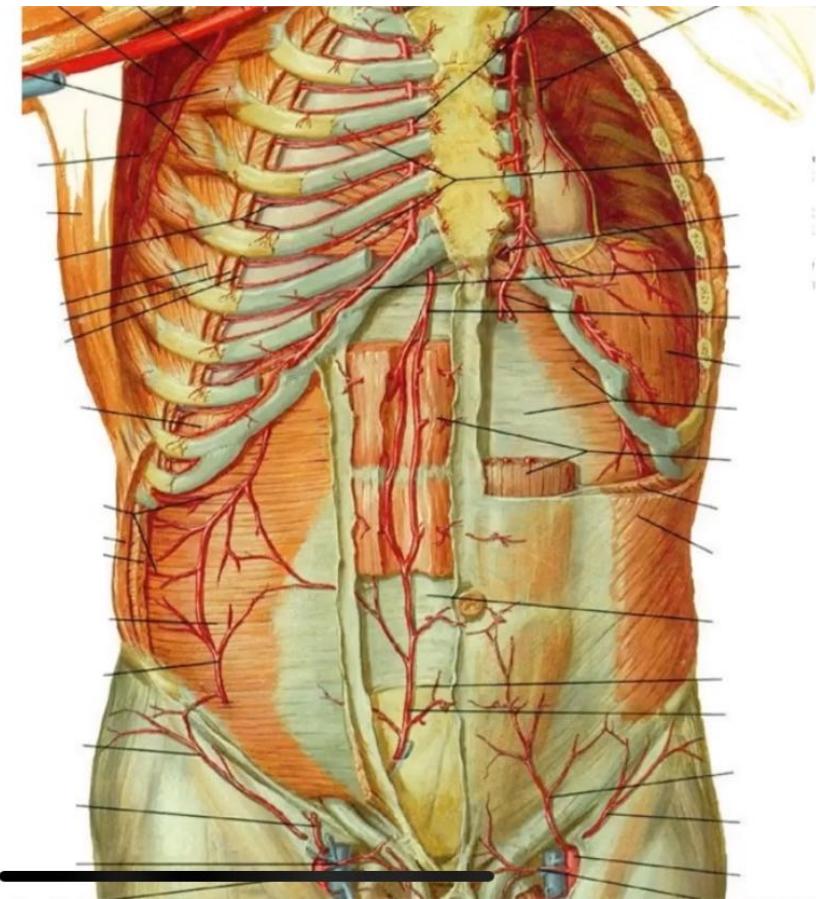
Fig. 57. — Schéma destiné à montrer le mode de constitution de l'arcade fémorale et du ligament de Gimbernat. — Le ligament inguinal externe de Henle est figuré en rouge.

phoïde



## Coupe tendineuse





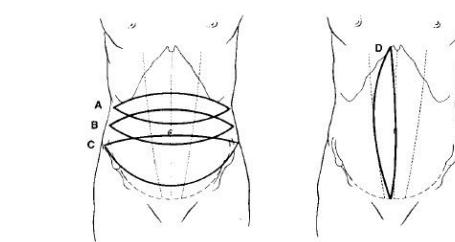
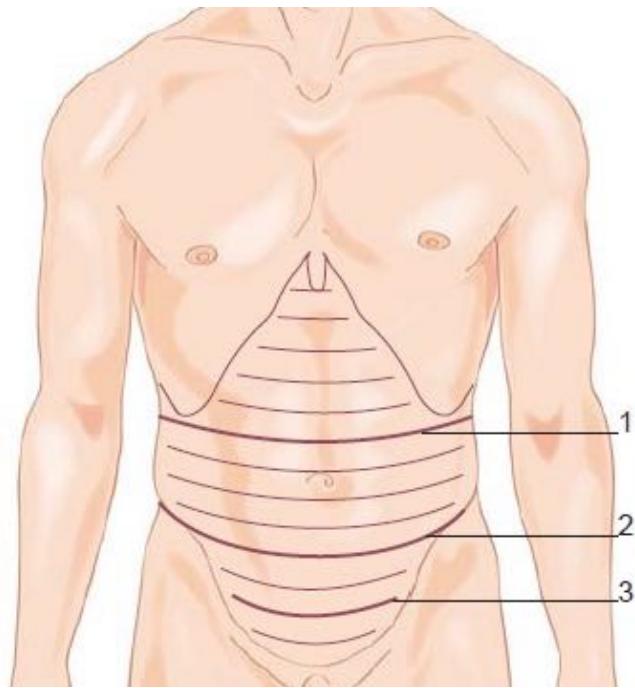
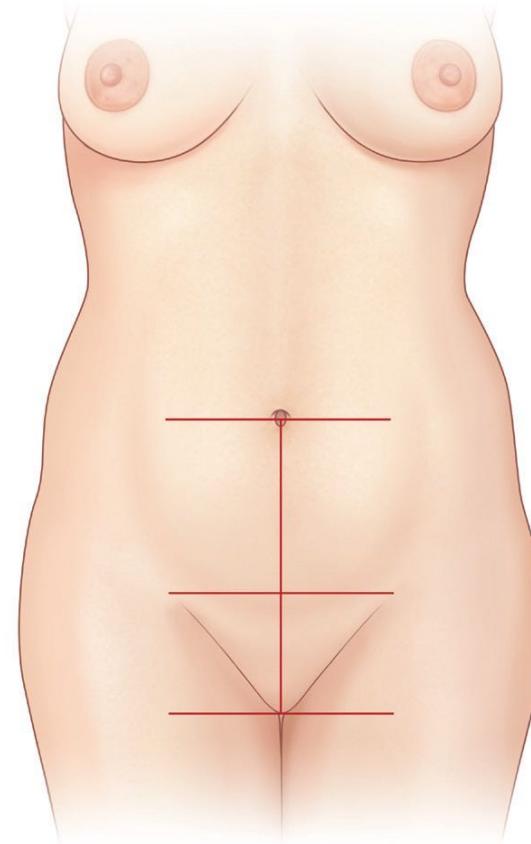
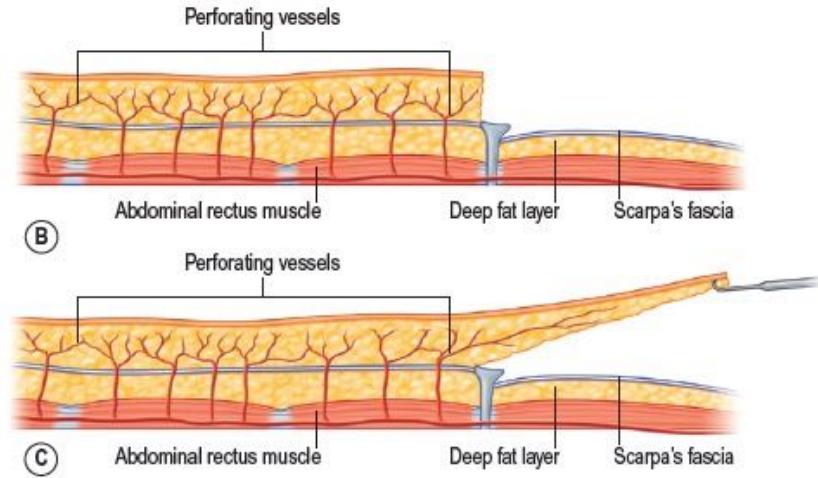
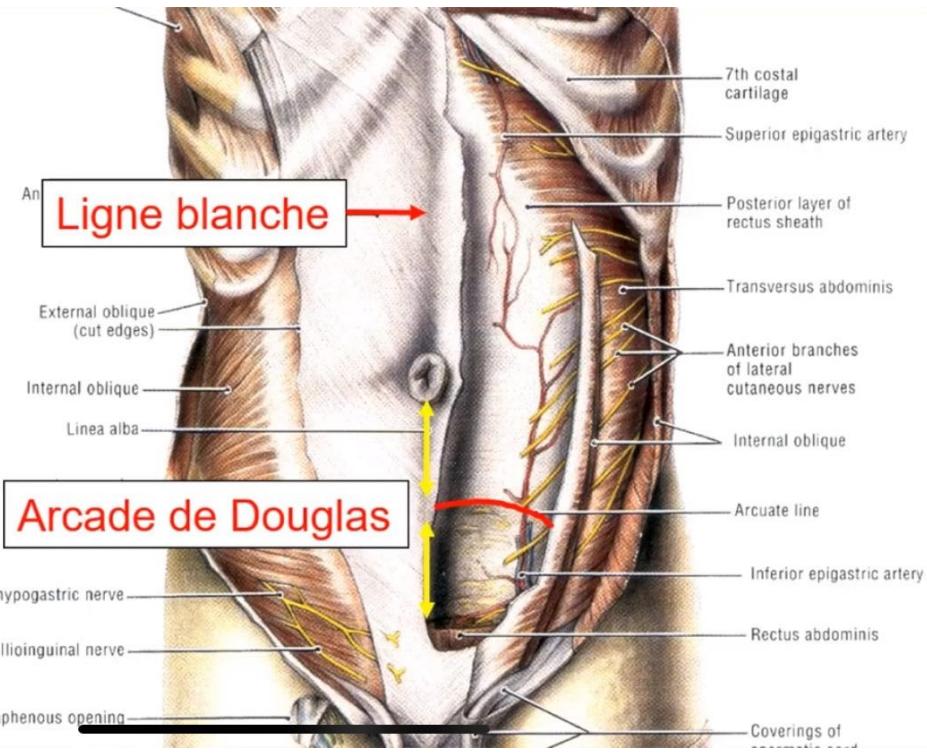


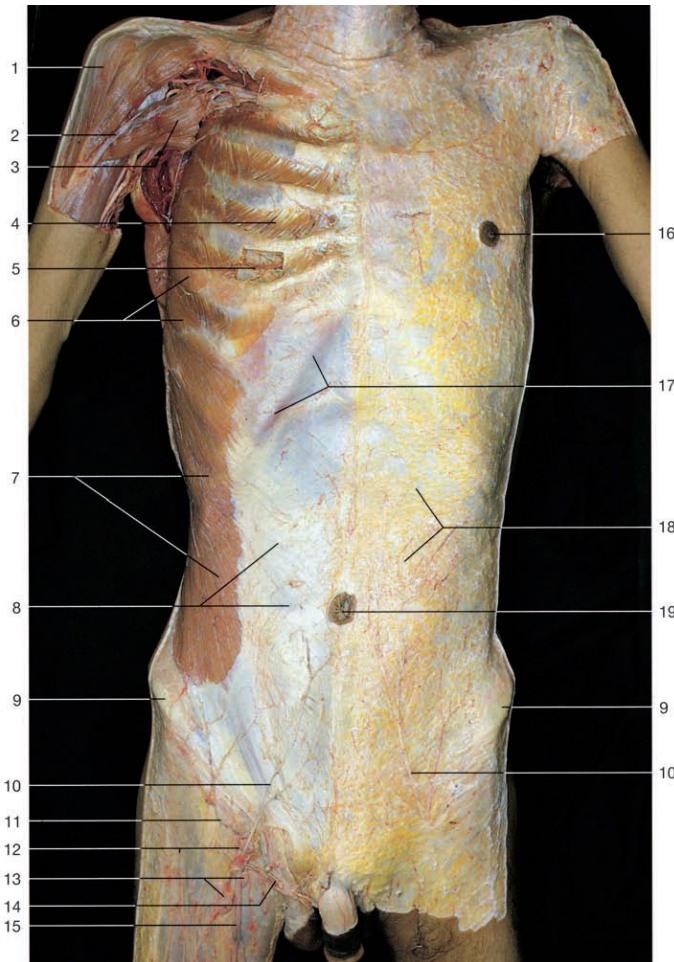
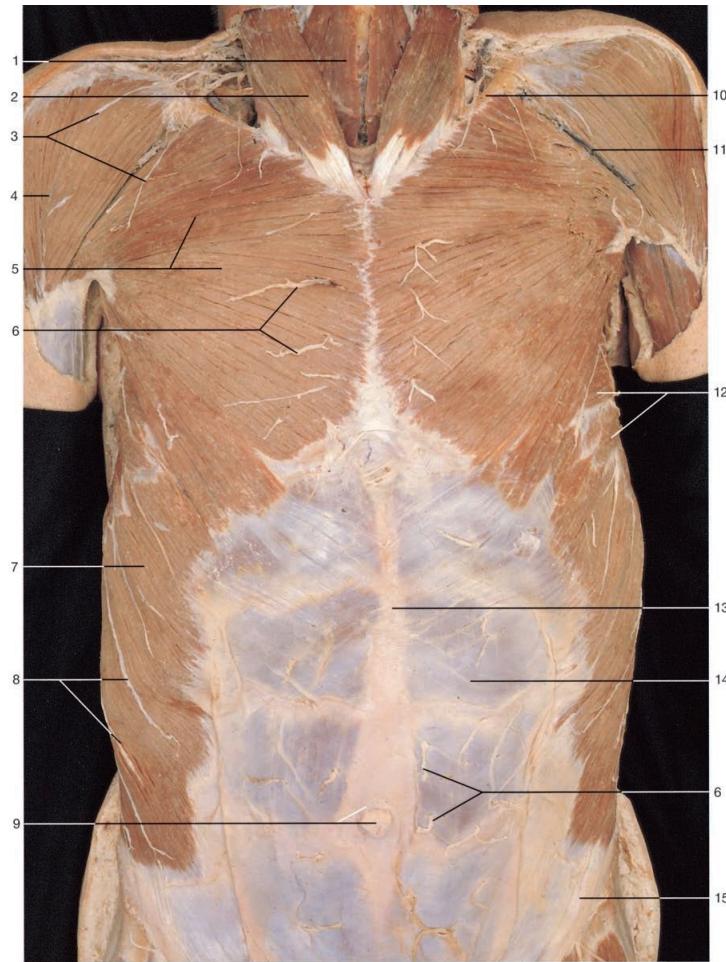
FIG. 1. Schematic diagram of the four rectus abdominis myocutaneous flaps examined, based on the deep superior epigastric artery.

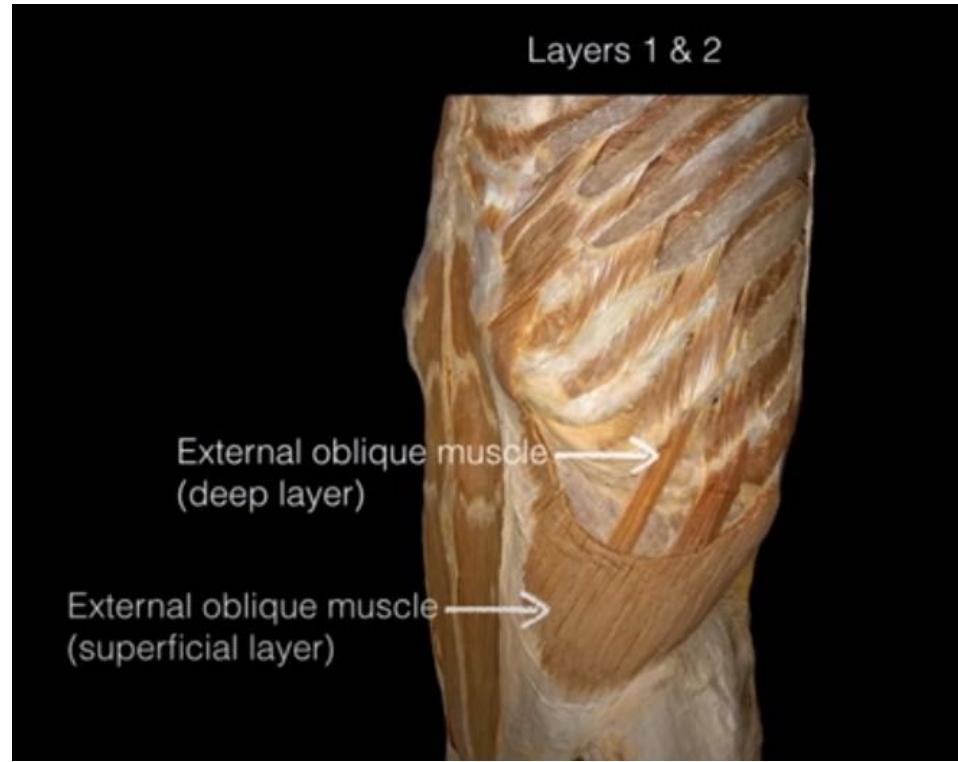
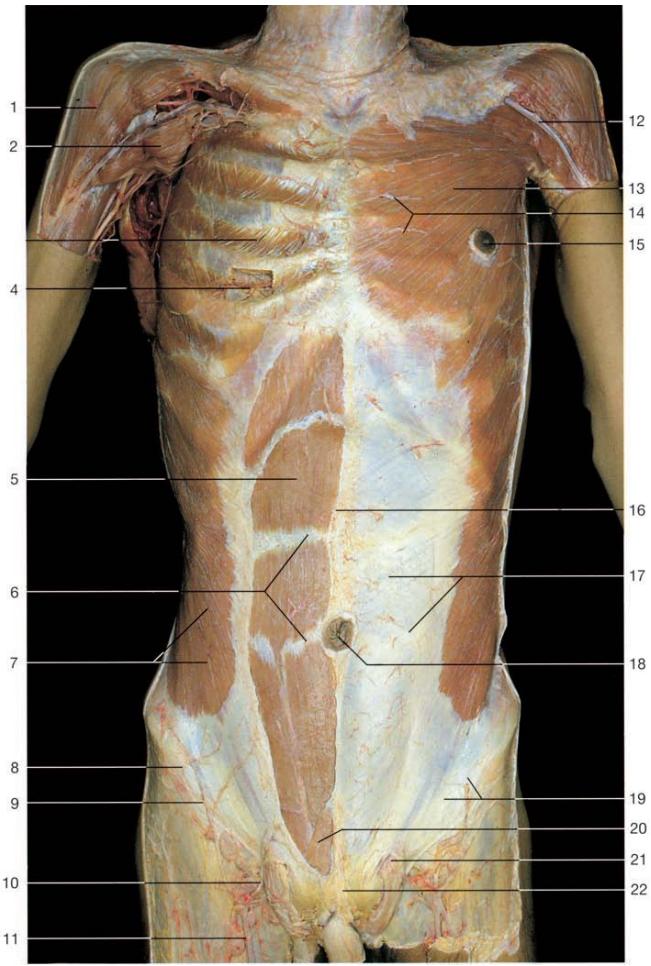


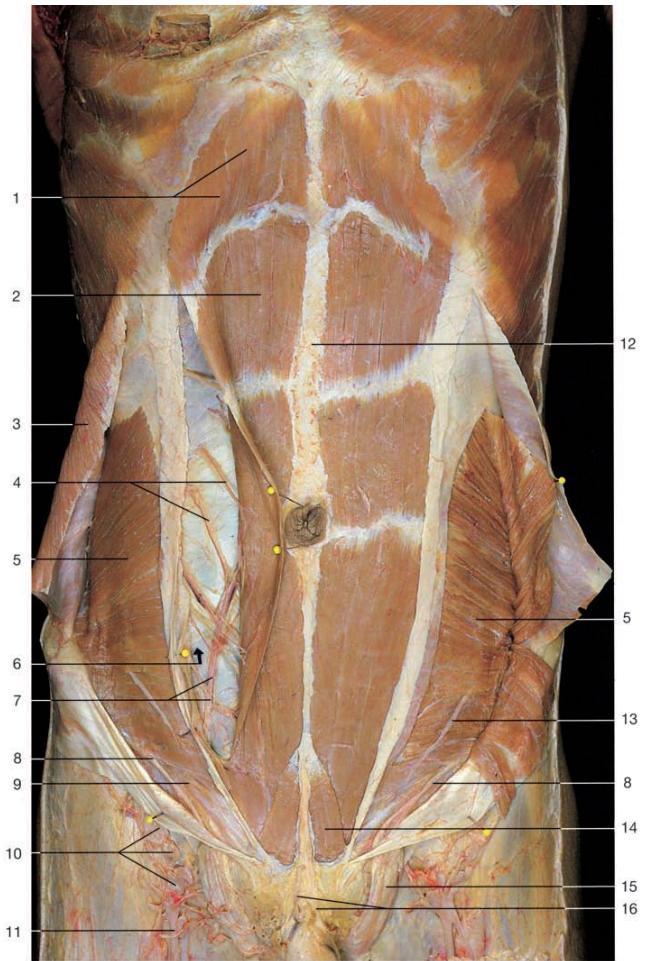


er in the lower abdomen to accommodate the abdominal flap.









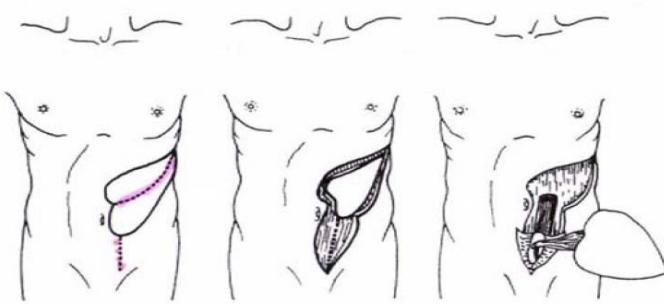


Figure 50 :Levée du lambeau musculo cutané de grand droit à pédicule inférieur selon Taylor

(d'après Gottlieb)

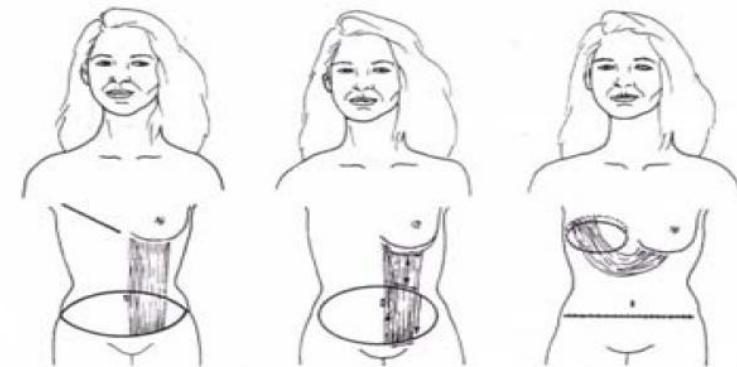
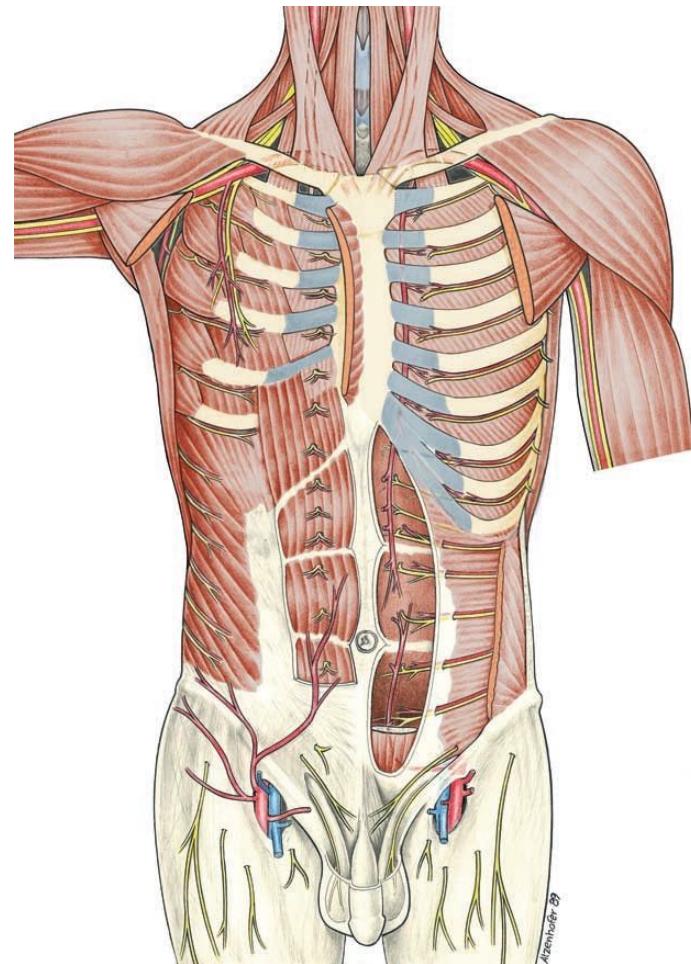
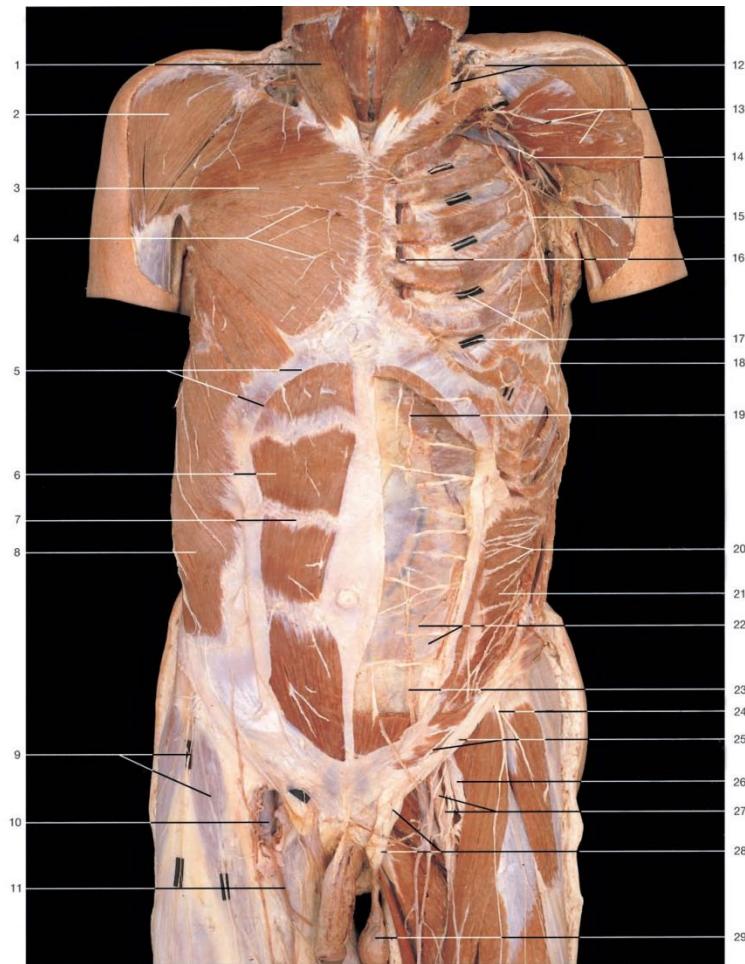
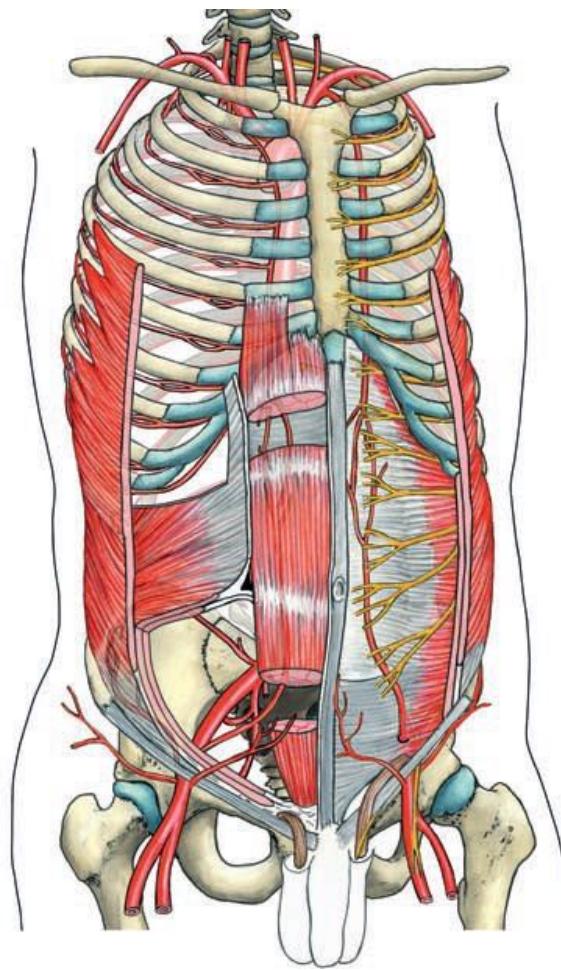
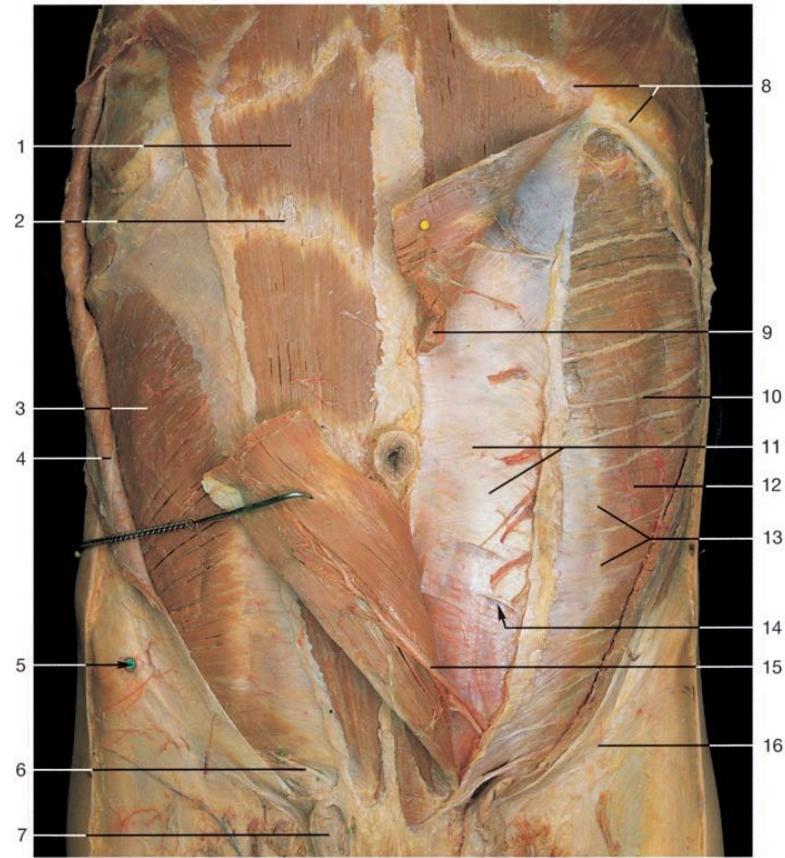


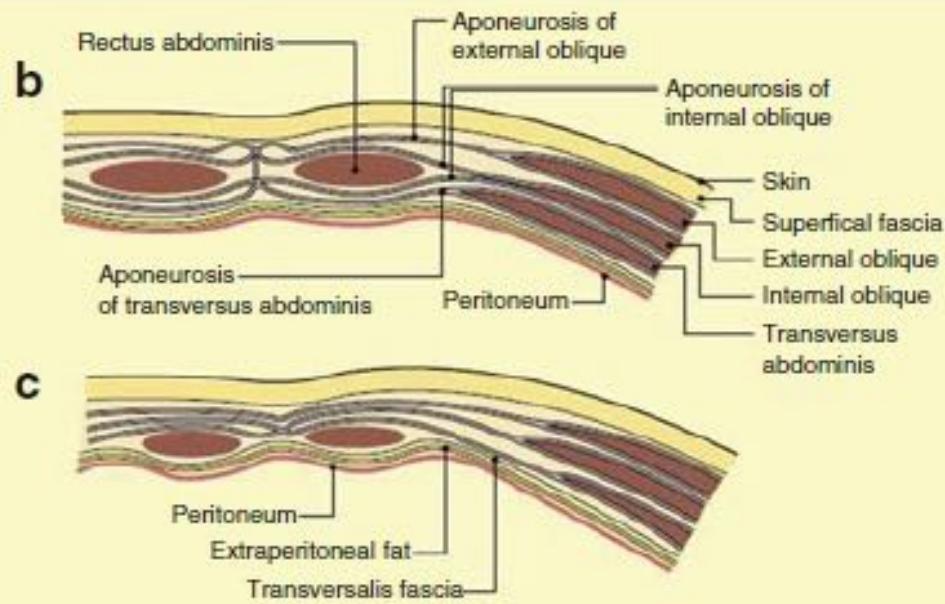
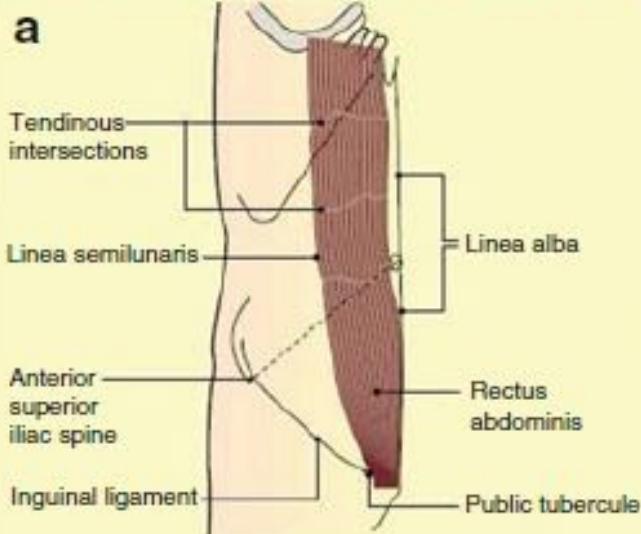
Figure51 :Levée du lambeau musculo cutané du grand droit a pédicule supérieur

(TRAM flap)

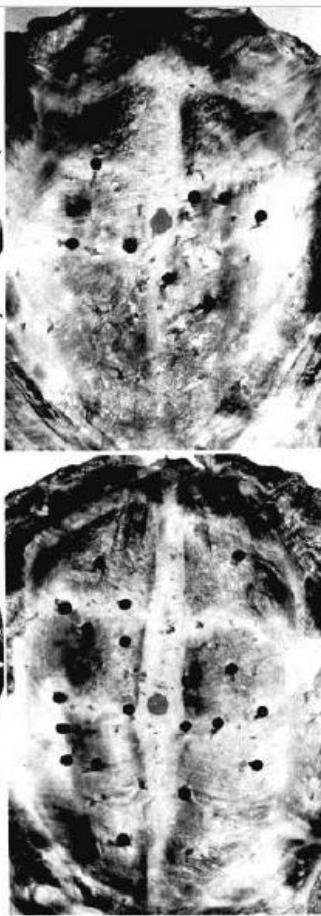
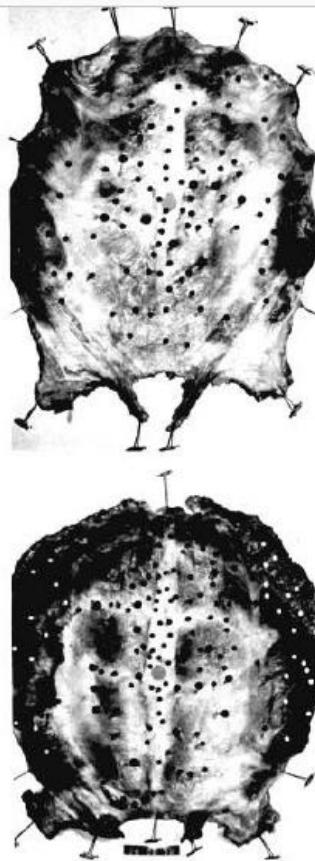




### Rectus abdominis muscle and rectus sheath



**a** Right rectus abdominis after removal of the anterior layer of its sheath. **b** and **c** Transverse section of the anterior abdominal wall showing the interlacing fibres of the aponeuroses of the right and left oblique and transversus abdominis muscles, above **b** and below **c** the arcuate lines



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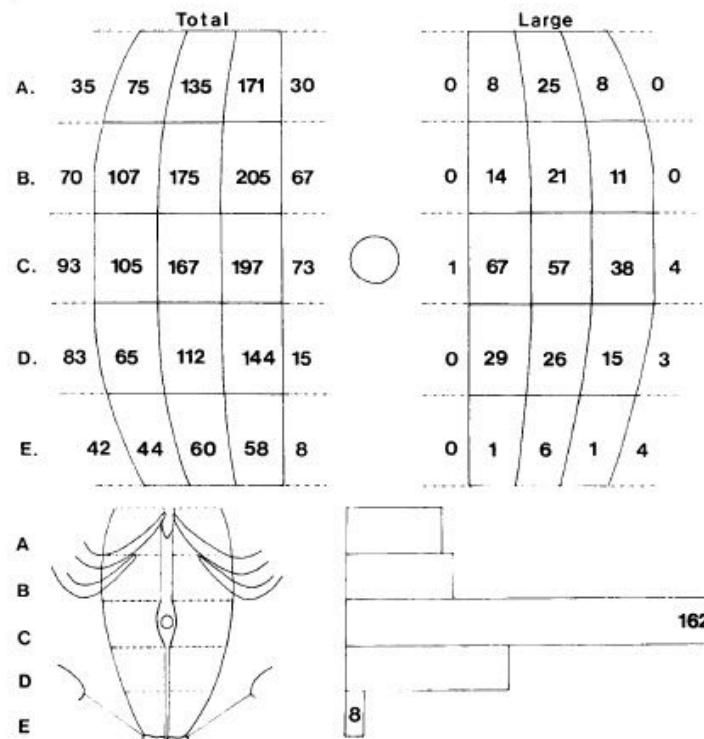
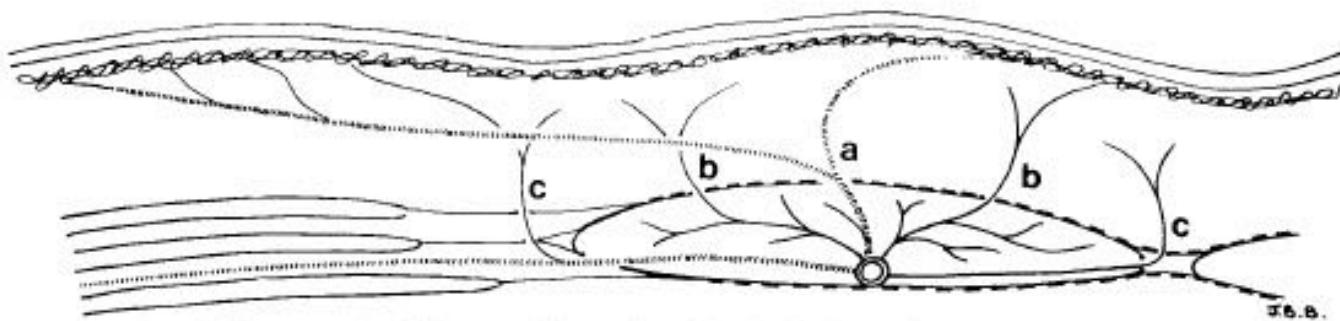
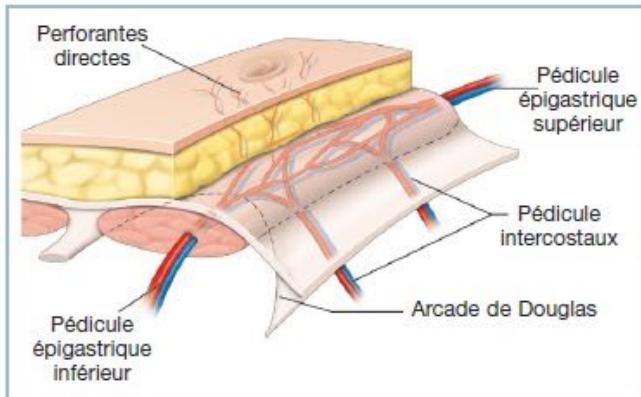


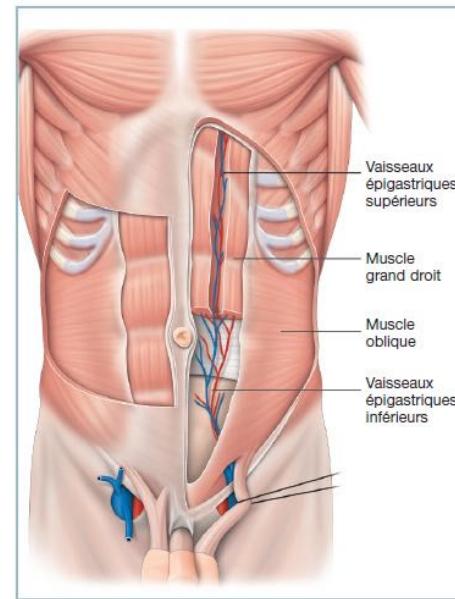
FIG. 4. (Above) Division of the rectus abdominis into horizontal fifths and vertical thirds



**FIG. 7.** A simplified cross-sectional diagram of the anterior abdominal wall at the level of the umbilicus. The deep inferior epigastric artery (which is usually at this level) gives rise to a large direct perforator (*a*) that passes outward to join the subdermal plexus lateral to the rectus sheath. Terminal twigs from muscular arteries form smaller musculocutaneous perforators (*b*), while the fasicocutaneous perforators (*c*) emerging through the linea alba and external oblique aponeurosis are derived from segmental vessels.



**1.15** L'épigastrique inférieure est dominante; elle s'anastomose à l'épigastrique supérieure à travers le muscle droit. Des perforantes naissent directement, traversent l'aponévrose et vont vasculariser la graisse sous-ombilicale. Les plus grosses sont situées dans un diamètre de 5 à 8 cm autour de l'ombilic.



**1.14** Vascularisation du muscle droit de l'abdomen. Incision 1 ou 2 cm au-dessus de l'ombilic qui emmène les perforantes supérieures.

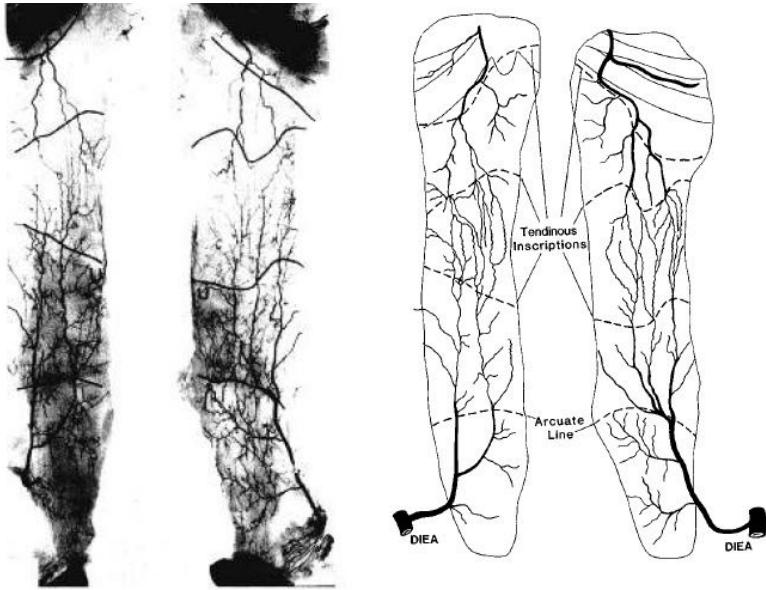


FIG. 5. Radiographs and schematic diagrams of a pair of rectus muscles with lead wires locating the tendinous intersections and the arcuate lines. Note the branching of the deep superior and the deep inferior epigastric artery at each of these landmarks.

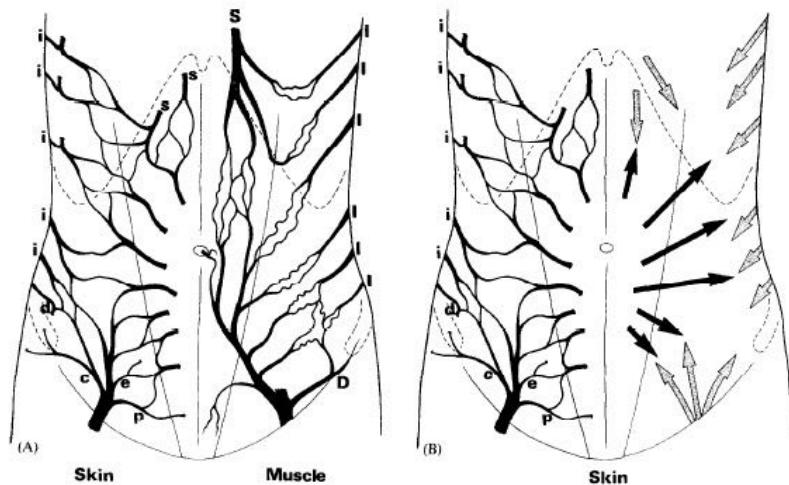


Fig. 1

Figure 1—The blood supply of the anterior abdominal wall. Only the dominant arteries are illustrated and the midline cross over is omitted for clarity. (A) The main “choke” arterial connections of the DIEA are shown in the muscular layer (right side of diagram) and in the integument (left). Note that the vascular architecture is similar in each layer. The DIEA connects directly with muscular and cutaneous branches of the superior epigastric (*S*,*s*), intercostal (*i*,*j*), deep and superficial circumflex iliac (*D*,*d*,*e*), the superficial inferior epigastric (*e*) and the pudendal (*p*) arteries. (B) The vascular architecture of the cutaneous branches of the DIEA (left side of diagram) is oriented radially from the para-umbilical hub (right).

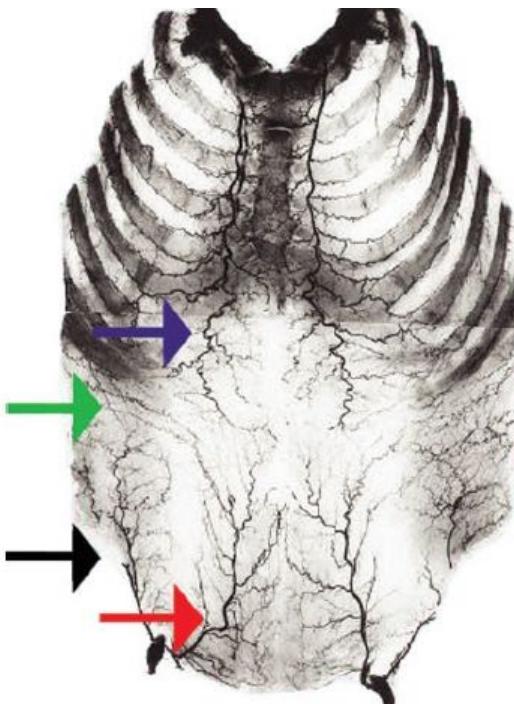
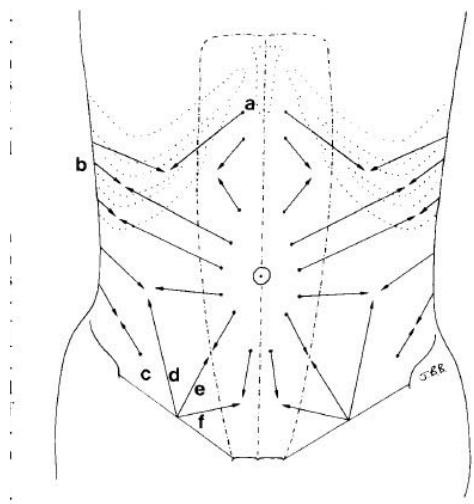


Fig. 1. Vasculature of the deep tissues of the ante-

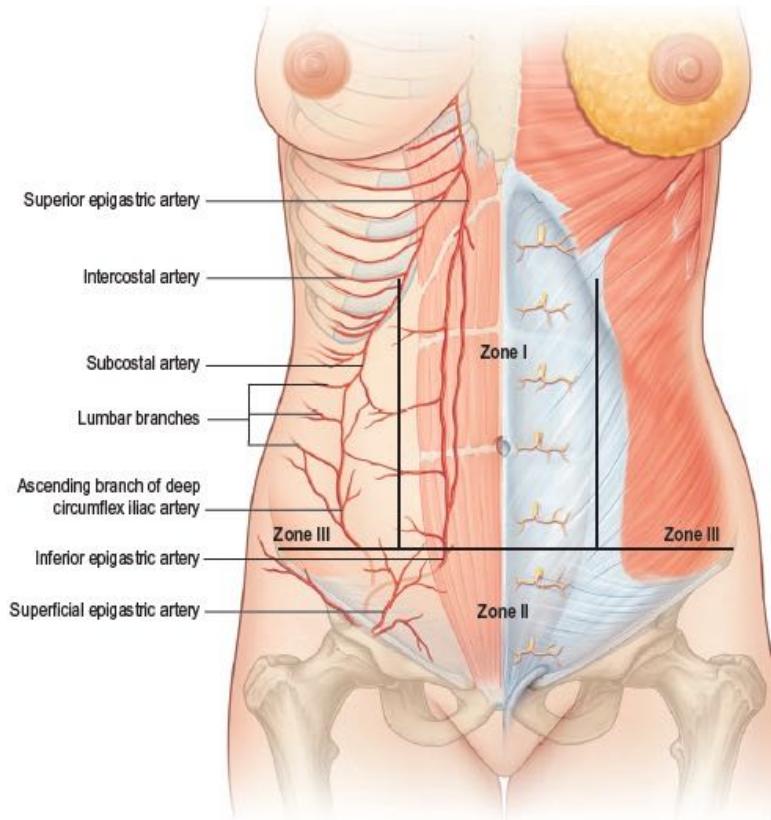


Fig. 25.4 Zones of blood supply.<sup>22</sup>

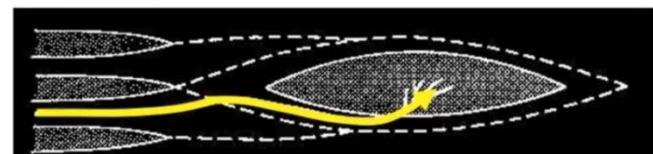
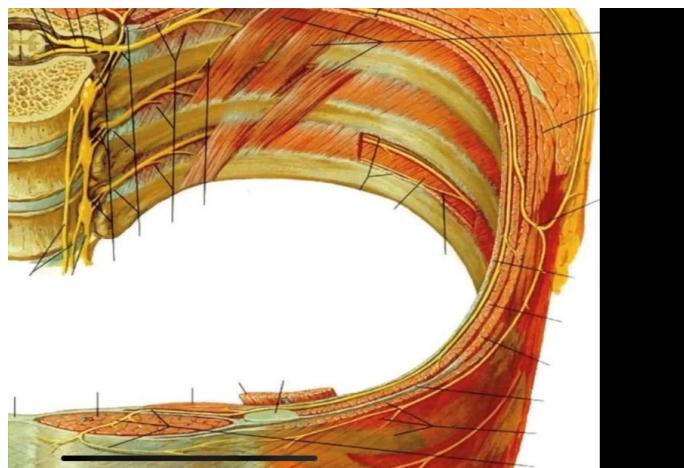
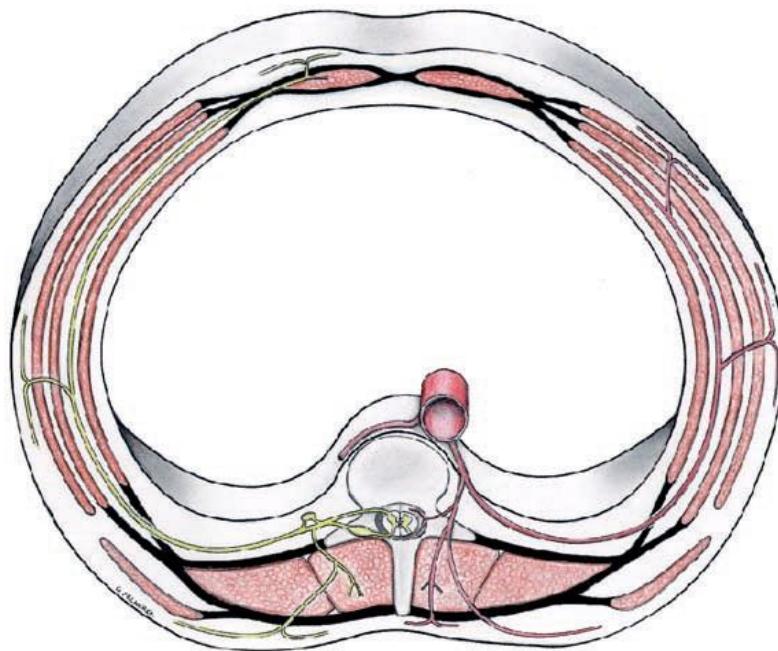


FIG. 4. Schematic representation of the innervation of the rectus muscle as observed on cadavers dissections. The nerves enter the deep face of the rectus abdominis in the middle part of the muscle.

Duchateau J, et al., PRS, 1988, 82, 2 : 223-227

>>> NB : Pas de branches cutanées

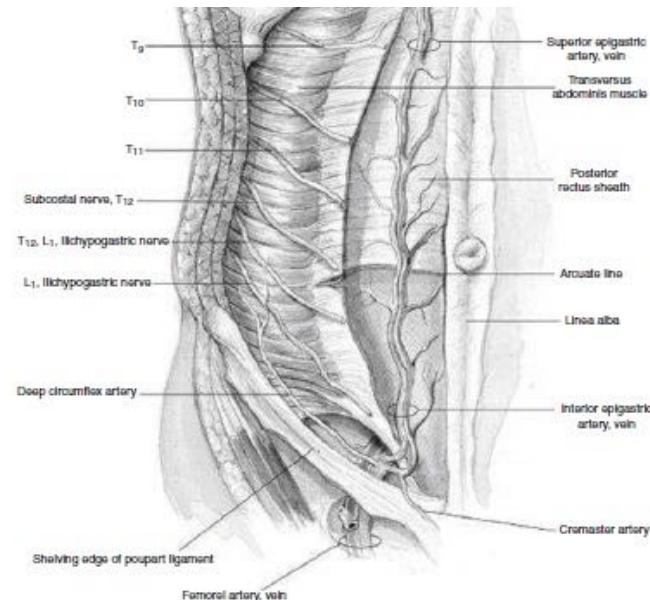
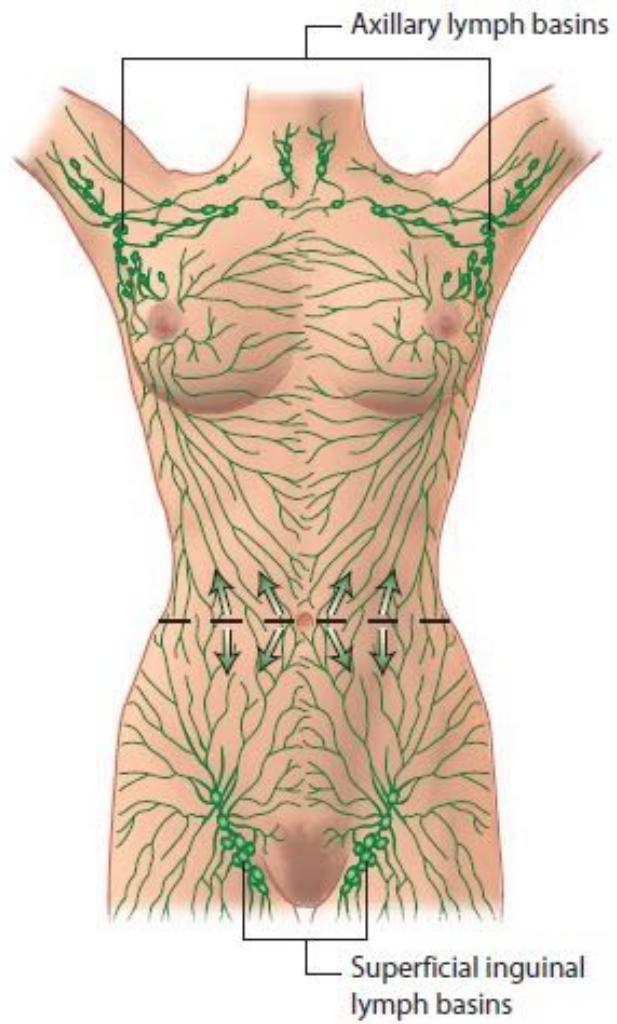
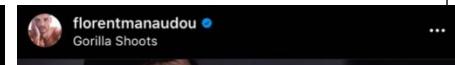
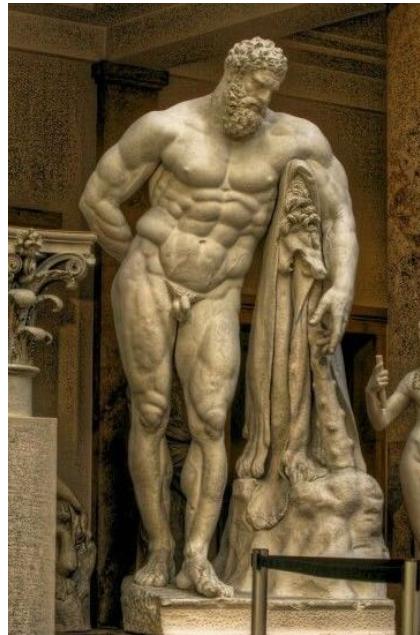


Fig. 1.13 Nerve supply of the anterior abdominal wall (Ahluwalia et al. [9])



# Anatomie artistique de la Silhouette





**Fig. 5.** Preoperative frontal view (left) compared to a photograph obtained 1 year postoperatively of a male patient with six-pack abdominal etching with well-defined hip lines (right).



**Fig. 6.** Preoperative frontal view (left) compared to a photograph obtained 6 months postoperatively of a female patient with vertical line etching and defined hip lines (right).

# CONCLUSION

- La chirurgie plastique de l'abdomen impose une connaissance approfondie des bases anatomiques au sens large
- Cette connaissance et la maîtrise de l'anatomie chirurgicale de la paroi abdominale permet le développement continu de nouvelles techniques de plasties.

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