


جَامِعَة  
الْمَنَارَة  
MANARA UNIVERSITY

دليل الطالب إلى الجلسة الخامسة  
المرجع دليل واشنطن الجراحي  
إعداد : د . كرم خطاب

# Types of injection

1. IM = Intramuscular “into muscle”
  2. IV = Intravenous “into vein”
  3. ID = Intradermal “into dermal layer”
  4. SC = Subcutaneous “into Subcutaneous layer”
  5. IA= Intra-arterial = into artery
  6. Intra-articular “into joint”
  7. IT=Intrathecal “into cerebrospinal fluid”
  8. IP = intra peritoneal “into peritoneal cavity”
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## Ampoule



## iv infusion



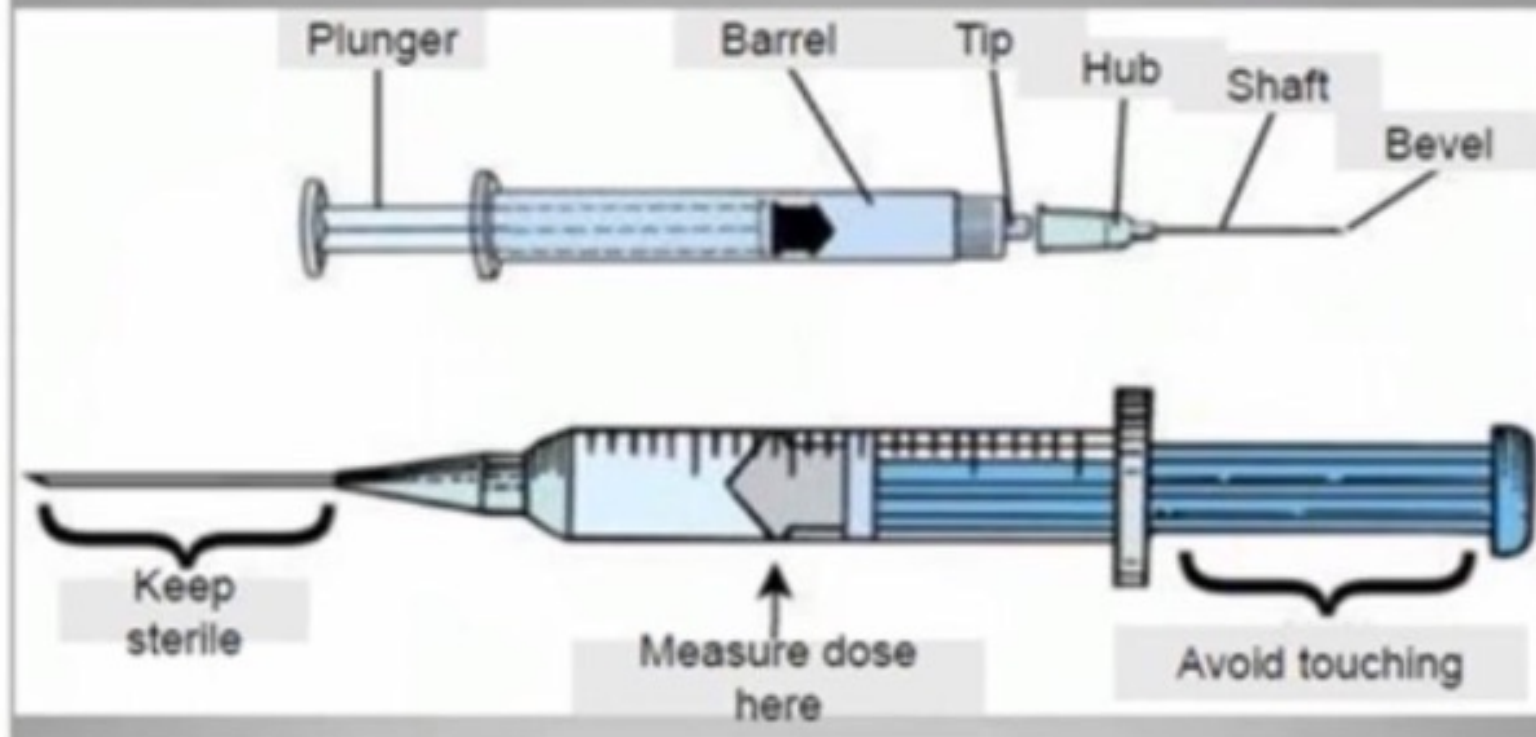
## Vial



Ampule



## PARTS OF THE SYRINGE



# Types of Syringes



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# Intra dermal

angle **5-15°** (Dose less than 0.5 ml)

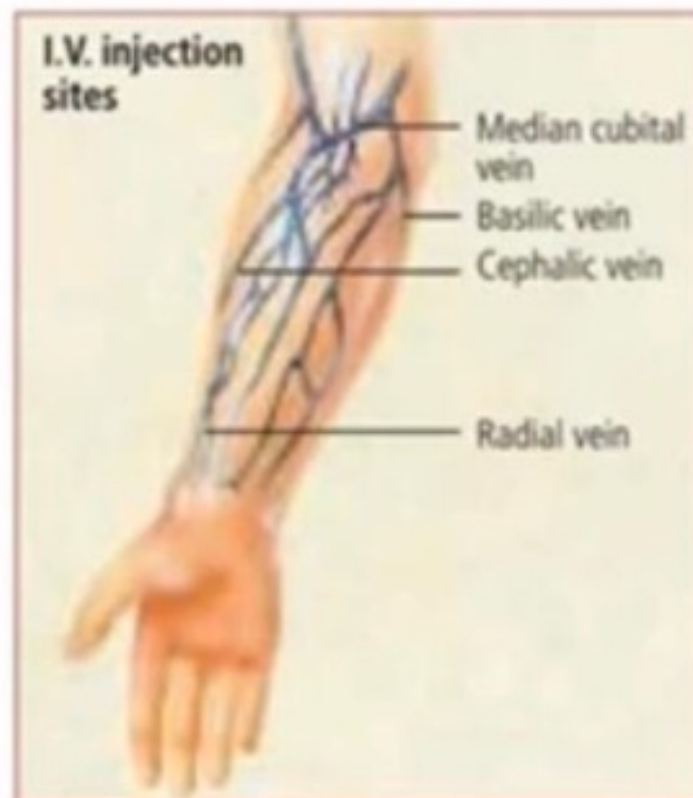
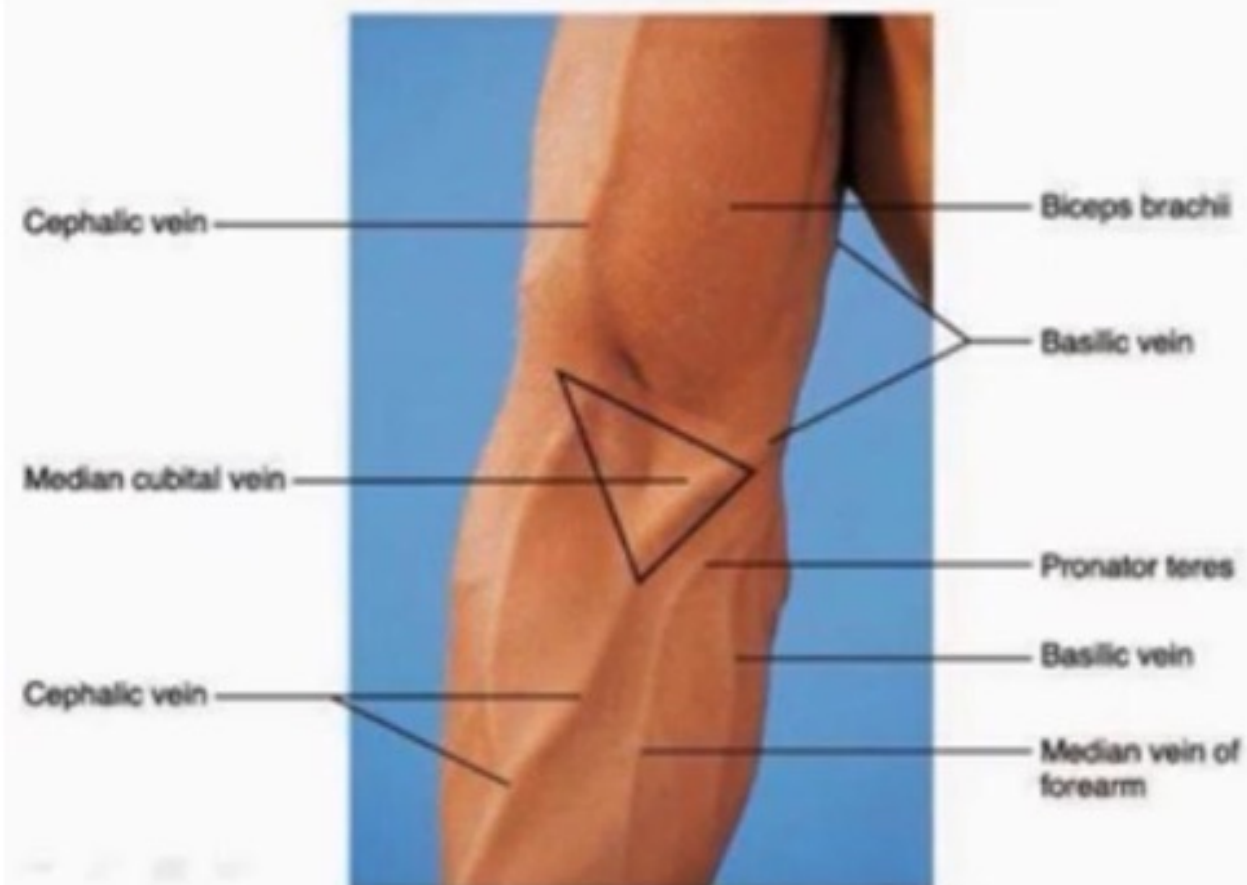


## Indications:

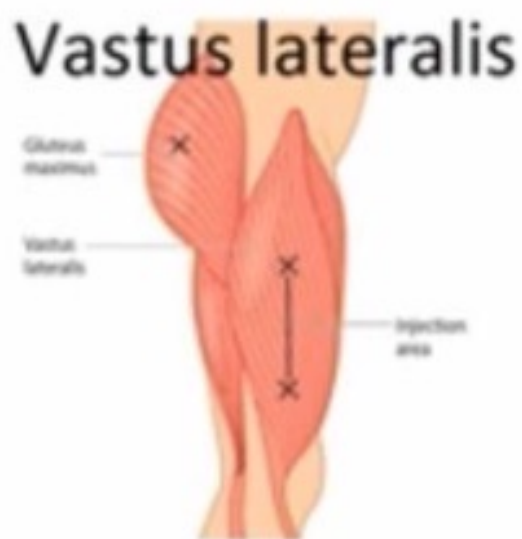
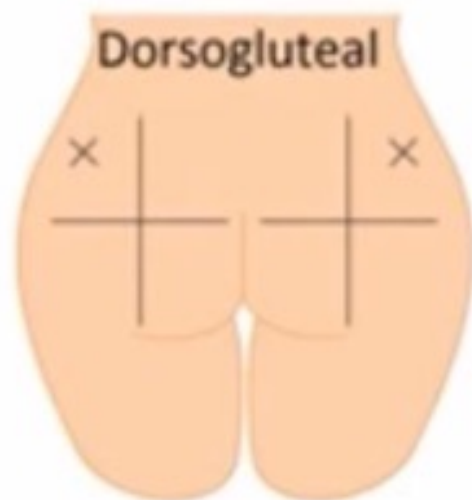
- ☒ sensitivity test "antibiotic" (allergies and sensitivities to drugs) = skin test
- ☒ For administering tuberculin testing



# Intravenous angle **35°**



# Intramuscular angle **90°** (Dose **5 ml**)

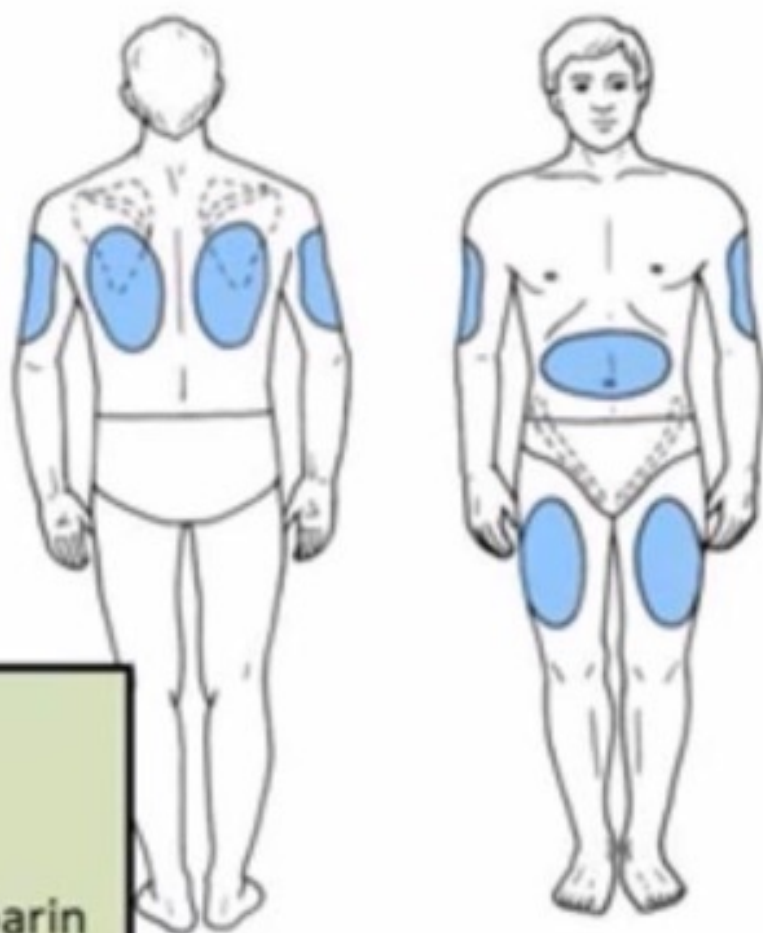




# Subcutaneous angle $45^\circ$ (Dose 1-2 ml)

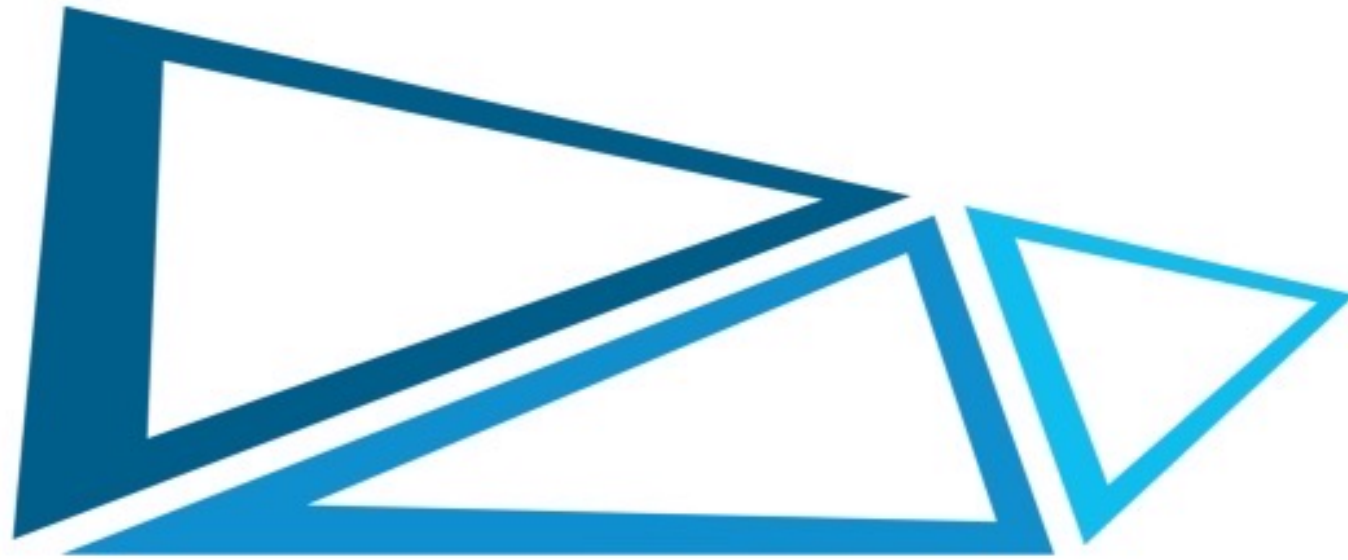
## Sites

1. Outer aspect of the upper arm
2. Abdomen (around umbilicus)
3. Anterior aspects of the thigh
4. Upper back



## Indications:

1. Insulin
2. Heparin
3. Anticoagulation e.g. clexan – inohep--fraxiparin



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انتهت الجلسة

شكراً لكم