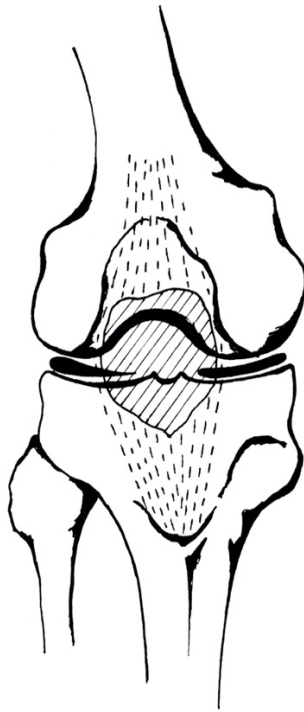
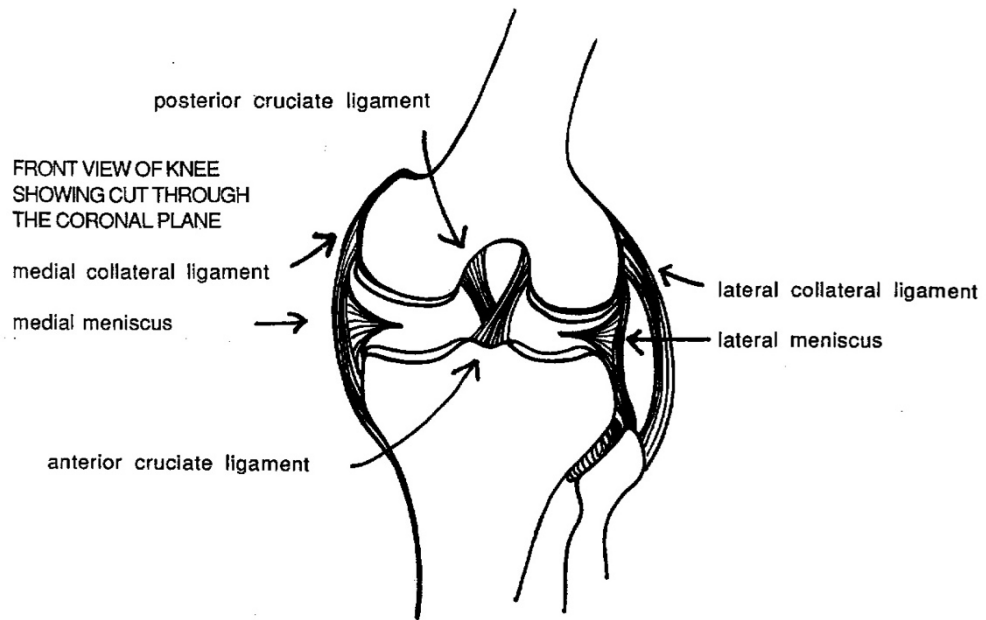


ILLUSTRATIONS OF THE KNEE - BONES, JOINT STRUCTURES AND SUPPORTING TISSUES, MUSCLES, MOVEMENT

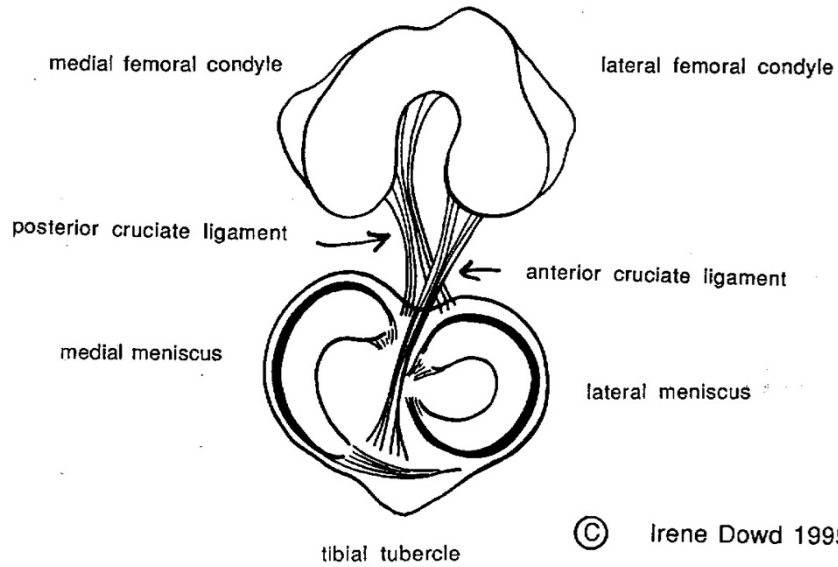
All illustrations drawn freehand by Irene Dowd between 1970 and 2024

drawn from live models, human bone skeleton, cadaver dissection, photographs of moving figures, x-rays and MRI scans, in addition to schematics created by Irene to illustrate various ideas & images

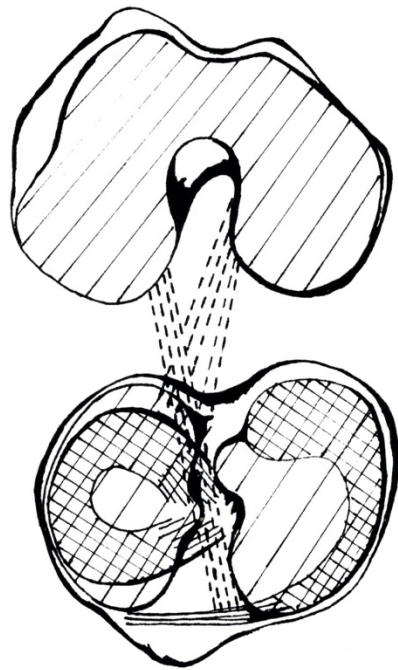




SUPERIOR JOINT SURFACE OF THE KNEE -
THE ARTICULAR SURFACE OF FEMUR



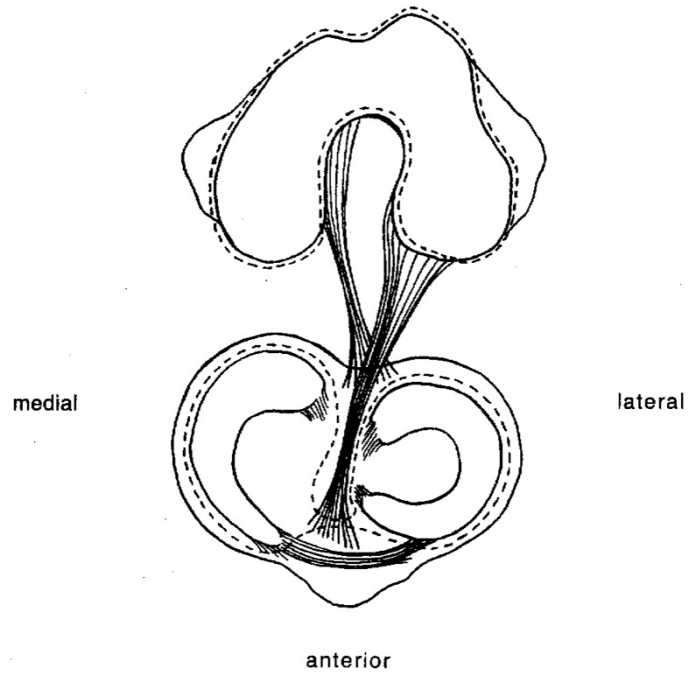
INFERIOR JOINT SURFACE OF THE KNEE -
THE ARTICULAR SURFACE OF THE TIBIA



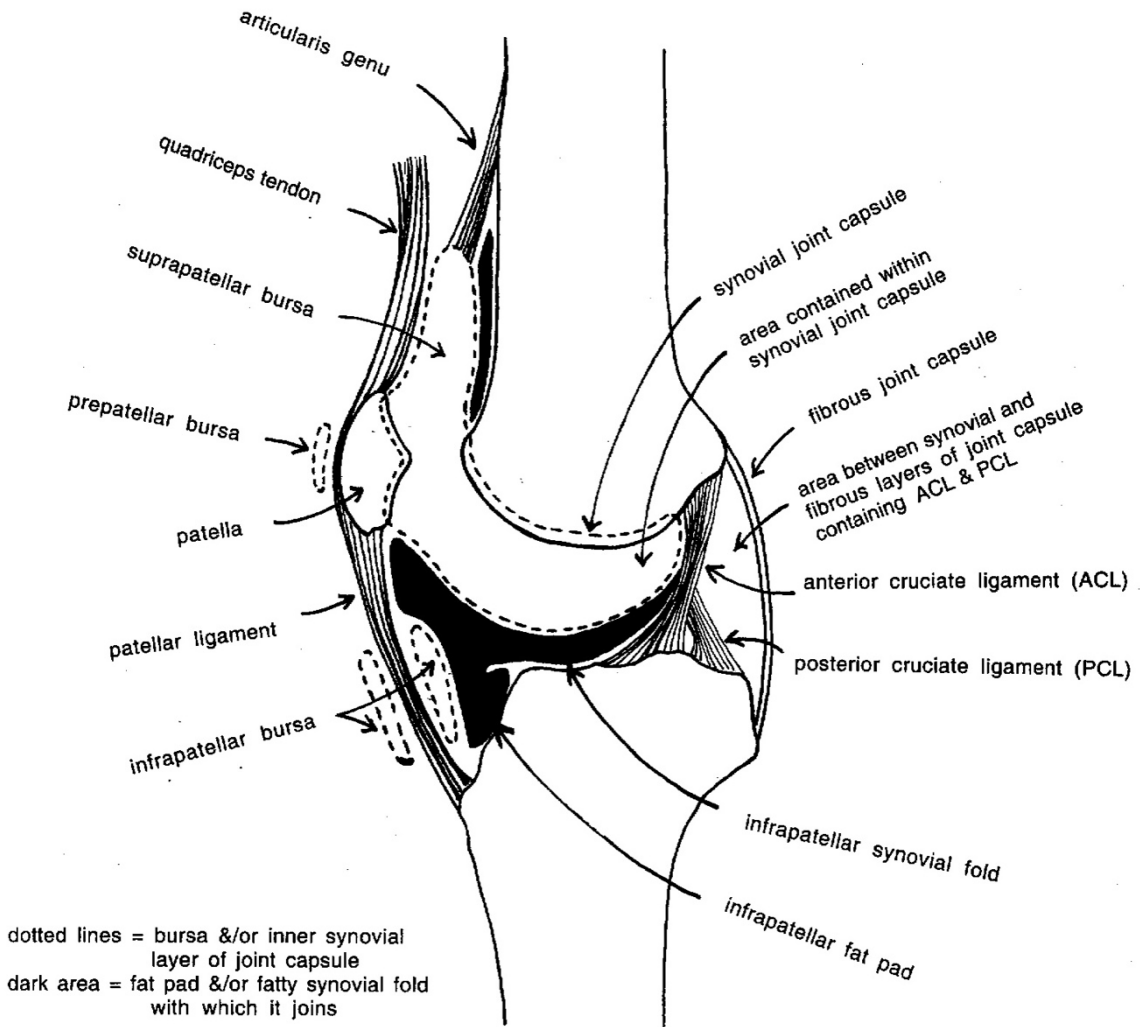
schematic of front view inside of knee joint: diagonals represent areas covered by hyaline cartilage, cross-hatching represents menisci, diagonal lines represent cruciate ligaments

SIMPLIFIED SCHEMATIC SHOWING INTERNAL VIEW OF LEFT KNEE
OPENED FROM THE FRONT TO SHOW ARTICULAR SURFACES OF FEMORAL CONDYLES AND
TIBIAL PLATEAU

BROKEN LINES REPRESENT APPROXIMATE BORDER OF SYNOVIAL MEMBRANE
WHICH FORMS INNER LINING OF KNEE JOINT CAPSULE
note that menisci are contained inside synovial joint capsule while
cruciate ligaments are outside synovial joint capsule



SIMPLIFIED SCHEMATIC SHOWING OUTSIDE VIEW OF LEFT KNEE
 CUT THROUGH SAGITTAL PLANE (FRONT/BACK VIEW) LATERAL TO MIDLINE OF JOINT
 SHOWING INTERCONDYLAR REGION NEAREST TO LATERAL FEMORAL CONDYLE
 DISTANCES BETWEEN DEPICTED STRUCTURES HAVE BEEN GREATLY EXAGGERATED

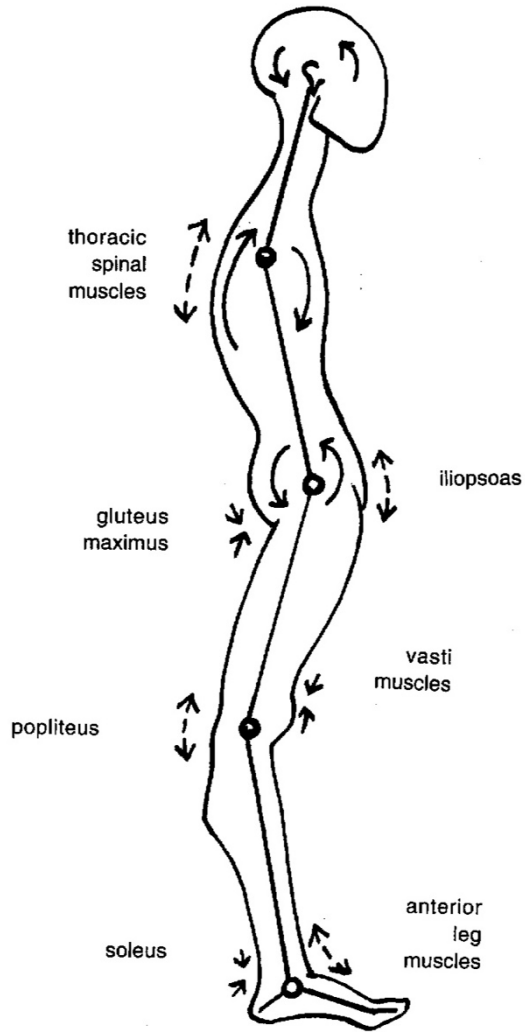


A PORTRAIT OF UNCONTROLLED HYPER-EXTENSION OF THE KNEE

↕
↔
= ligamentous laxity
perhaps, eccentric
muscle work
therefore increased
muscle bulk & fatigue

↔
= shortened muscles
joint compression
perhaps, weak
muscles
therefore greater
vulnerability to
injury

↻
= direction of
rotation of
"visceral sphere"



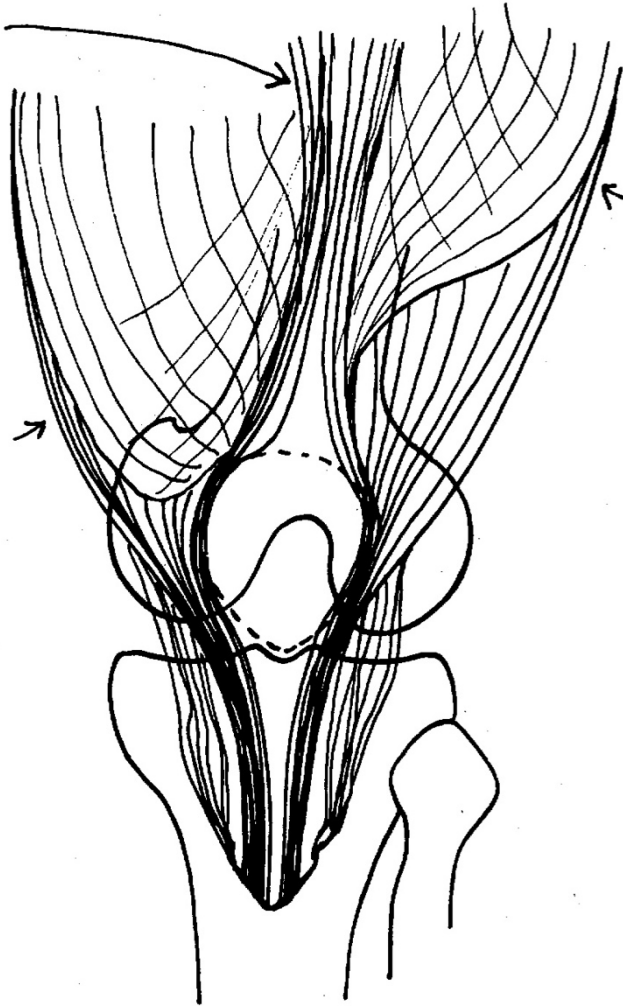
ANTERIOR ASPECT OF KNEE JOINT -
ATTACHMENT OF QUADRICEPS

rectus femoris

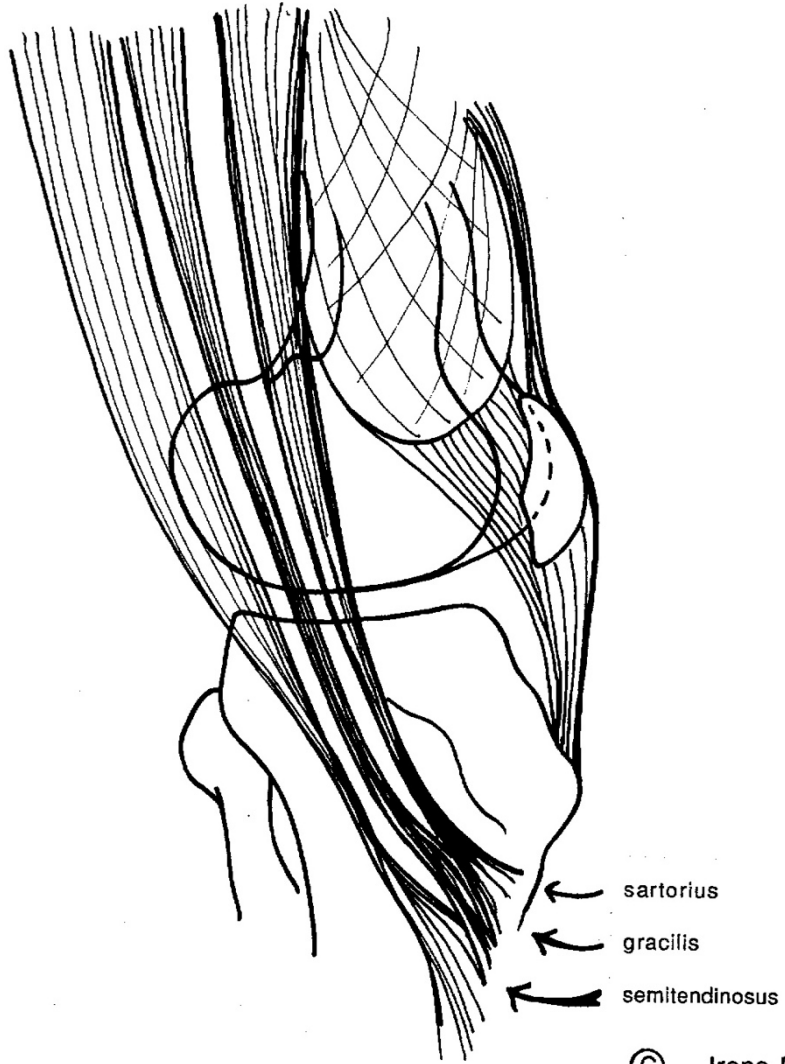
vastus intermedialis
(directly underneath
rectus femoris)

vastus lateralis

vastus medialis



MEDIAL ASPECT OF KNEE JOINT -
PES ANSERINE REGION



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LATERAL ASPECT OF KNEE JOINT

