First carpometacarpal joint (saddle joint)

With the patient relaxed on a couch, identify the coracoid process in the front. By rotating the arm, locate and mark the glenohumeral joint line posteriorly. Insert the needle into the joint, pointing it towards the outer side of the coracoid process. Ease of entry indicates that the needle is positioned correctly.

Shoulder (posterior approach)

Temporomandibular joint

Locate the joint space by placing the finger 1 to 2 cm anterior to the tragus and feeling the condyle moving on opening and closing the mouth. A mark is made and, with the patient’s mouth open, enter the upper joint space by inserting the needle perpendicular to the skin and directing it slightly posteriorly and superiorly.

Finger interphalangeal joints

Locate the joint line by gently flexing and extending the joint. With the digit straight or slightly flexed, the needle may be inserted on either side just under the extensor tendon.

Wrist (superior approach)

Identify the joint space by palpation. While holding the wrist partially flexed at 20°, insert the needle using a superior approach to the joint space just medial to the ulnar styloid.

Knee (medial retropatellar approach)

Encourage the patient to relax the quadriceps while lying supine on a couch. The medial site of entry is just below the mid-point of the patella. Introduce the needle in a line towards the suprapatellar pouch.

Ankle joint (anterior approach)

Ask the patient to dorsiflex the foot. Palpate the space between the tibia and talus, in the region bound medially by the stretched tibialis anterior tendon and laterally by the extensor hallucis longus tendon. Insert the needle into this space, ensuring that it enters tangentially to the curve of the talus.

Elbow (anterior approach)

Locate the course of the femoral artery by palpation over the inguinal ligament. Insert the needle vertically, about two fingers’ width lateral to the femoral artery, just below the inguinal ligament. When the tip of the needle hits the head of the femur, withdraw the needle about 2 to 3 cm and inject.

First metatarsophalangeal joint

Exert a gentle traction on the joint of the toe to locate and mark the dorsolateral joint line on the lateral side. Inject the joint through the dorsum of the toe with the needle entering tangentially from the lateral side of the extensor tendon.

Elbow (posterior approach)

Bend the elbow at 90° and ensure it is comfortably supported. Feel the depression in the midline at the back of the elbow, between the two halves of the triceps tendon, and identify the olecranon process and the olecranon fossa. Insert the needle just above the olecranon process, slightly to the lateral side, just into the olecranon fossa.

Intra-articular Injection Techniques

Intra-articular injections should be performed under aseptic conditions and, if necessary, with radiological control.