NEEDLING ZONES
Needling Zones

- **Green zone - safe needling area**
- **Yellow zone - needle with caution**
- **Red zone - needle with extreme caution or avoid needling**
The Face

Hazards: eyes, parotid gland,

Muscles: pterygoids, temporalis

The eyes are a no go zone for dry needling. The parotid gland is also a very tender area, and it's better not to put needles into this area.
Back of the Neck
Hazards: Spinal Cord, Vertebrobasilar Artery

Don’t needle here without extremely specialised knowledge and/or advanced imaging.

Back of the Skull
Hazards: Spinal Cord, greater occipital nerve.

Muscles: Suboccipitals, iliocostalis, longissimus

Needle into this area only if you’re 100% sure that you’re aiming towards the occipital bone.

This gives you a margin of safety, especially if you aim upwards towards the occipital bone.

Triggers here are often located at the musculotendinous junction. Ask your client to tell you if they feel any electric shock sensation - this will alert you if you hit the greater occipital nerve.
Hazards: carotid artery, vertebra basilar artery, trachea, spinal cord, thyroid gland, brachial plexus

Muscles: pterygoids, scalenes, sternocleidomastoid

Just behind the mandible and below the ear - there is no safe way to needle here. These arteries supply large amounts of blood to the brain. They need to be avoided at all times.

The front of the neck is a very dangerous area to needle. The sternocleidomastoid can be needled by lifting the free edge, but this should be done with extreme care.

The line of safety in the neck occurs at tranverse processes of neck - see side view of the human body above. Anything in front of this line should only be needled experienced people and even then only with extreme care.
Shoulder Joint

Hazards: Shoulder joint, brachial plexus, lungs

Muscles: Posterior - trapezius, supraspinatus, infraspinatus, teres major and minor, posterior deltoid.
Anterior, pectoralis minor and major, anterior deltoid

The danger is that if you pierce a joint, there is a risk of infection - and infection inside a joint is a major concern.

The lungs also come up surprisingly high - if you are needling the shoulder. Again, the upper trapezius can be needled by lifting the free edge, bringing it clear of the lungs and away from the brachial plexus.
Hazards: Lungs, heart

Muscles: Pectoralis major and minor,

The ribs are the safety zone. You need to not go any deeper than the ribs. You need to needle tangentially, and superficially. The breast bone or sternum is also a safety zone, but there are not triggers located here.

Going too deep could puncture lungs or injure the heart. The pectoralis major and latissimus dorsi both have free edges that can be lifted for safer needling. The subscapularis muscle can also be accessed from the inside of the axilla, or armpit.
Hazards: Spinal Cord, Lungs

Muscles: rhomboids, erector spinae muscles, latissimus dorsi, trapezius, serratus anterior and posterior

The danger of needling muscles over the ribs is that the needle could go deep enough to penetrate between the ribs and puncture the lung.

This can cause a pneumothorax, or collapsed lung. While this can be painful for your client, and will need medical attention, punctures with an acupuncture needle are minute, and in most cases will get better without further intervention.

All the way up in the centre of the spine, on either side of the spinous processes of the vertebrae is a gap where a needle can penetrate to the spinal cord. For trigger point needling, this area needs to be avoided.

The upper trapezius has a free edge that can be lifted up for safe needling. The scapula is also a safe zone as the lungs are protected by the scapula bone.
Hazard: Joints

Muscles: biceps, triceps, forearm extensors and flexors, quadriceps, vastus lateralis and medius, soleus, biceps femoris

Avoid needling into joints at the wrist, elbow, ankles and knees. The danger is piercing the joint capsule and causing an infection inside the joint.
Hazards: Liver, Kidneys

Muscles: quadratus lumborum, erector spinae muscles, latissimus dorsi

The kidneys and liver have a huge blood supply. Puncturing them can cause internal bleeding. They are often very deep however. Controlling the risk means making an accurate estimate of how much muscle and subcutaneous tissue is between the skin surface and the internal organs.

This will vary with the build of the person: ie. fat, thin, muscular build.
Hazards: Liver, kidneys, spleen, pancreas, stomach

Muscles: rectus abdominis, external and internal obliques, transversus abdominis

The liver and spleen are usually located under the ribs but in some people they can be enlarged and may extend out from under the ribs. These organs are extremely vascular. The liver is located on the right, the spleen on the left. Any needling under ribs needs to be done with care as in thin people they may be quite superficial.

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Sometimes unexplained abdominal pain can be caused by triggers in the muscles of the abdominal wall. It is not uncommon for chronic abdominal pain to be fully investigated (gastroscopy, colonoscopy, ct scan etc.) and no cause found within the organs in the abdomen. These patients will often have abdominal wall trigger points, and they will often respond well to needling.
Hazards: sciatic nerve, sacral hiatus

Muscles: piriformis, gluteus maximus, minimus and medius

The nerve runs from the sciatic notch and then down the leg. Striking this nerve is very uncomfortable to clients. Injecting local anaesthetic into or close to the nerve can cause temporary numbness and loss of control of that leg. The gluteus maximus has a free edge that can be pulled up to treat it safely.

If this occurs, clients need to remain seated or lying down until the numbness has faded - usually 30-40 minutes. This will depend on the type of anaesthetic used.

The centre of the spine also needs to be avoided in this area.

The lower half of sacrum also needs to be avoided. This is where sacral hiatus is located. There are no trigger points here, so need for this area to be dry needled.
Hazards: femoral artery, vein and nerve

Muscles: Adductors, Psoas, rectus femoris, sartorius

Feel for the femoral artery (you should be able to feel the pulse of the artery. The vein and nerve run very close to this. If you do puncture the artery or vein, keep pressure on for 3-5 minutes in order to prevent a hematoma.
Knee Joint

Hazards: Popliteal Nerve and Artery, Knee Joint

Muscles: popliteus, quadriceps, vastus lateralis, vastus medialis, sartorius, biceps femoris, adductor magnus, plantaris, gastrocnemius

The middle of the back of the knee is where the popliteal nerve and artery run. So care needs to be taken when needling here. They run right against to the bone, so in this case the bone does not provide a measure of safety.

Needling into the knee joint itself also needs to be avoided, as there is a risk of infection. The back of the knee is also where an important traditional acupuncture point is located - Urinary Bladder 40 or UB40.
Hazards: tibial artery, tibial nerve, ankle joint

Muscles: gastrocnemius, soleus, flexor digitorum longus, flexor hallucis longus

On the inside of the ankle the tibial artery, vein, and nerve run. Hitting the nerve will be uncomfortable to your client, and hitting the vein or artery may cause a hematoma.