Arterial Blood Gas Sampling

Arterial Puncture Sites
- dpa=dorsal pedal artery
- fa=femoral artery
- pa=palmar arch
- sl=sublingual artery
- vt=ventral tail artery
- de=dorsal ear artery
- sa=saphenous artery

Preparation for Arterial Puncture
- Assess circulation by palpating pulse.
- Clip hair.
- Apply warm compresses to area to increase circulation and dilate vessel.
- Perform sterile preparation of site using warm prep solutions.
- ± local anesthetic infiltration or topical lidocaine/prilocaine cream.
- Local anesthetic increases patient comfort, but may obscure vessel palpation and pulsations.

Arterial Puncture
- Use commercially prepared blood gas syringe to decrease chance of sample clotting. Syringes are available from your laboratory supplier.
- Feel artery pulsations with forefinger of one hand.
- Use opposite hand to guide needle through skin at 45° angle for fa, or 30° angle for pa, sc, de, vt, sa, and dpa.
- Once through skin, slowly advance needle along line of travel of artery until blood is visible in needle.
- Reduce needle angle from 45° to 30° (femoral artery only).
- Gently aspirate blood.

Post Sampling
- Withdraw needle from artery.
- Apply pressure as needle is withdrawn.
- Apply pressure bandage and leave in place for at least 5 minutes.
  - Expel air bubbles from syringe and remove needle.
- Analyze sample immediately.
  - If a delay is expected, remove needle, replace cap and place on ice.
  - Do not allow sample to be exposed to air.

Precautions
- Do not advance needle against resistance.
- Repeated attempts may spasm and damage the vessel.

For questions or further assistance, please call Heska’s Technical Support Services at 1-800-GO HESKA, option 3.