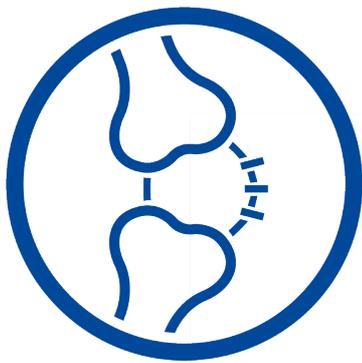


# Warming up and cooling down...

Warm-up and cool-down are essential elements of exercise/competition. Effective warm-up ensures your dog is able to carry out the task at hand with a reduced risk of injury, better technique and is likely to perform much better. Appropriate cool-down allows gradual reduction in cardiovascular activity to optimise post exercise comfort and tissue conditioning.



**Warm-up** is effective in performance enhancement and injury prevention as it progressively increases neurological stimulus, raises the heart and respiratory rate and increases blood flow through body tissues for;

- Energy reserves to efficiently bring about movement
- Warming of tissues, making them more pliable for greater stretch and movement absorption
- Heightened neurological control mechanisms which prevent overstrain of joints and body segments, for optimum movement control and injury prevention

Suitable **cool-down** gradually reduces respiratory and heart rate and conditions body tissues:

- Gradual reduction of cardiovascular activity optimises lactate clearance (a by product of strenuous exercise) which causes post exercise soreness
- Stretching whilst muscles and tendons are warm allows for more effective stretch and optimum flexibility



# Our guide to... **Warming-up and cooling-down**



Over time, **stretching** increases the length of the muscle. Muscles perform at their most efficient when strong, with adequate, but not excessive length and with this in mind it is important to know that the use of **static stretching** *before* exercise;

- reduces explosive strength
- reduces the neuromotor control that the muscle uses to prevent over-strain during exercise

Static stretches should therefore be used during cool down. Holding each static stretch for between 10-30 seconds and repeating 2-4 repetitions is the optimum for length increase.

During warm-up, **dynamic stretches** (sequences of movement to fluidly stretch muscle groups, without a static hold) do not reduce muscle power or control and are better used during warm up.

## **Evidence-based guidelines.....**

### **Warm-up:**

- ✓ Varied and progressive activity
- ✓ Lasting approximately 10 minutes
- ✓ Gradually increased cardiovascular demand
- ✓ Replicate (at low but gradually increasing impact) activities that are used in competition
- ✓ Include dynamic stretches
- ✓ Builds up to a seamless transition into competition.

### **Cool-down:**

- ✓ Gradual reduction of heart and respiratory rate
- ✓ Lasting approximately 10 minutes
- ✓ Include static stretches for tight muscle groups at the end of the cool down



At Davies Therapy and Fitness Centre we are offering Fitness, Conditioning and Injury Prevention Workshops, To find out more visit our Facebook page Davies Therapy and Fitness Centre or visit [www.vetspecialiststherapy.co.uk](http://www.vetspecialiststherapy.co.uk)

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