



Welcome to  
**THE SUMMER  
TRAINING SECTION**

In this month's Training Section, Gillian Higgins (p18) and Clare MacLeod (p22) share their advice on **improving your horse's fitness through training and feeding**, Kelly Marks seeks expert opinions on the **Secrets of Stickability** (p24), and IH Trainer Emma Sharman makes the case for regularly **backing your horse up** (p29). Plus, we take a deep dive into the **Equine Brain** (p32) and use our knowledge of human psychology to offer advice on **approaching Difficult Conservations** (p34).



Polework can be used for building strength and fitness, improving coordination and balance, encouraging symmetrical movement, and much more!

All photos courtesy of Gillian Higgins

# IMPROVING PERFORMANCE WITH POLEWORK

By Gillian Higgins  
of Horses Inside Out



Gillian is passionate about horses, anatomy

and sharing all she knows for the good of the horse. A British Horse Society Senior Coach, professional sports and remedial therapist, and author, Gillian specialises in assessing posture and movement, devising exercises for improving performance and educating horse owners. She is well known for her popular books, videos, webinars and anatomical painting on live horses which she uses for her teaching.

**P**olework is one of my favourite subjects and it is such a powerful training aid – even simple exercise, when done correctly will improve a horse's way of going. I believe so much in the benefits of using polework, I use raised poles (logs actually!) with my own horses on a daily basis (on the way to the arena each day!).

What I really love about polework is that they encourage the horse to think for himself and to make changes to his posture or way of going naturally – there's no force involved.

However, it's not just a case of going over poles in any old fashion. For the horse to truly feel the benefits, it's essential to select the right pole exercise and set it up correctly so it strengthens certain muscles, mobilises specific joints and alters a horse's posture by design. The distances between them, as well as the heights, widths, orientation, number and combination will all affect the effect!

Before you rush out and put out lots of poles for your next training session, having a thorough understanding of the biomechanics of polework is essential for it to be truly effective. In this feature, you'll discover which polework exercises will suit your horse's needs for maximum effect. If you want to learn more check out the polework videos and the recorded *Poles for Posture* webinar in the Horses Inside Out Academy: [www.horsesinsideout.com/academy](http://www.horsesinsideout.com/academy)

## **i** THE BENEFITS OF POLEWORK

**Polework is a useful exercise for horses from all disciplines and its benefits should never be underestimated.**

It is good for maintaining balance, developing rhythm and energy, toning muscles, encouraging symmetrical movement, stimulating the production of synovial fluid within the joints, keeping the horse flexible and improving proprioception and hoof/brain coordination.

**Polework can also be used to rehabilitate horses from injury or neurological conditions. More specifically:**

- Walk poles are good for developing back rotation, lateral flexion, strength, and control
- Trot poles are good for developing core and abdominal strength, back stability, momentum power and spring
- Canter poles are good for strengthening the back, raising the forehand and hindquarters, strengthening the thoracic sling and, as the horse rocks between the fore and hindquarters are good for back mobility in terms of flexion and extension.

## PERFORMED REGULARLY, POLEWORK CAN:

### Improve way of going:

- Contribute to good posture
- Improve rhythm and regularity
- Develop impulsion and power
- Improve straightness and symmetry
- Improve balance
- Improve expression and cadence

### Stimulate the nervous system:

- Develop hoof-brain coordination
- Improve proprioception and spatial awareness
- Increase speed of reactions

### Stimulate muscles:

- Strengthen and stretch movement muscles
- Engage and tone core muscles

### Mobilise joints:

- Improve flexibility
- Increase joint range of movement and help adjustability of stride length
- Reduce joint stiffness
- and suppleness in joints

For maximum benefit, polework must be practised on a regular basis.

Whether ridden or performed in-hand, the horse should have a long rein and freedom to lower his head. This enables him to assess how and where to place his limbs and, as lowering the head and neck raises the back and engages the abdominal muscles, it will help improve posture. Polework exercises help straightness and symmetry as stride lengths are forced to be equal.

With a little imagination and ingenuity, poles and blocks can be configured in many ways to provide fun, variety and challenge whatever the gait.

## DISTANCE GUIDE

**WALK POLES:** 70cm > 1m

**TROT POLES:** 1.2m > 1.7m

**CANTER POLES:** 2.6m > 3.2m

**i** When placed closer together poles encourage the horse to shorten and collect and if placed further apart to open out, lengthen the frame and develop extended gaits.



## FREE GUIDE TO DISTANCES

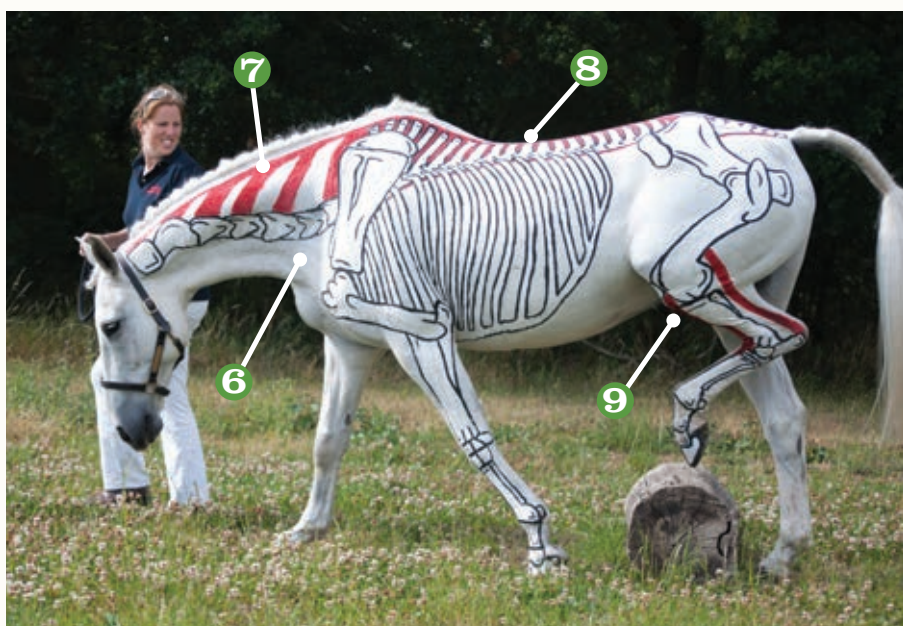
Check out the free tutorial video guides to distances in our Academy.

## 1 Walking over individual raised obstacles

- 1 Thoracic sling muscles recruited
- 2 Abdominal muscles stimulated
- 3 Back stabiliser muscles stimulated
- 4 Pelvic stabiliser muscles stimulated
- 5 Increased shoulder and elbow flexion
- 6 Base of the neck raised (retracted)
- 7 Nuchal ligament
- 8 Increased back rotation and lateral flexion improving mobility
- 9 Increased limb joint flexion



Walking over a pole at an angle requires concentration and core control. It is good for developing proprioception and for strengthening the thoracic sling, abductor and adductor muscles.



As the horse lowers his head to look at the obstacle, which should be at knee or hock height, the back is supported by the spinal ligament system. As there is no moment of suspension in walk he must clear the obstacle by stabilising his back, recruiting his core and by physically lifting his legs rather than by using momentum as he would in trot or canter. This action strengthens the muscles involved in carrying the weight of the rider, is good for horses recovering from sacroiliac, pelvic and back problems, and those recovering from abdominal and back surgery.

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# IMPROVING PERFORMANCE WITH POLEWORK

## IH Training Section

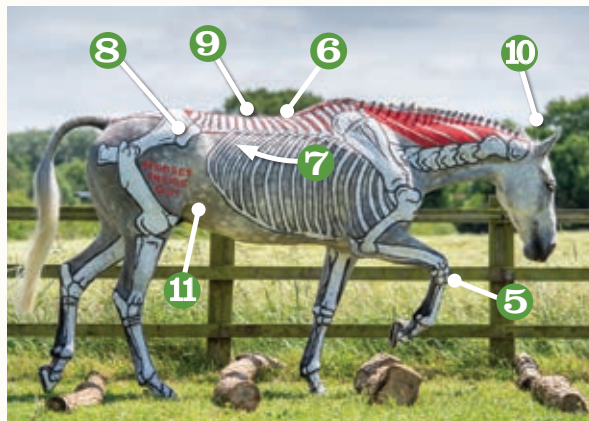
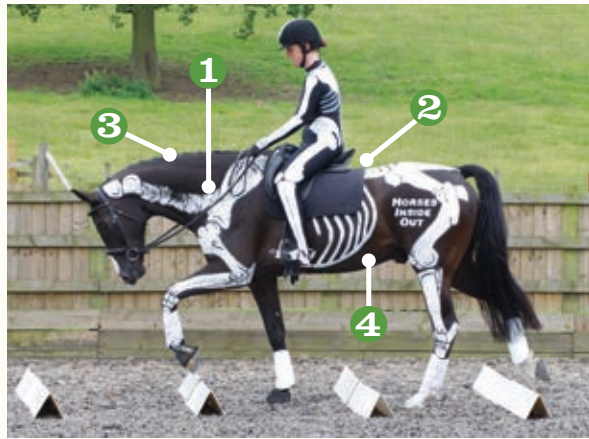
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### 2 Walk poles Parallel & fanned poles:



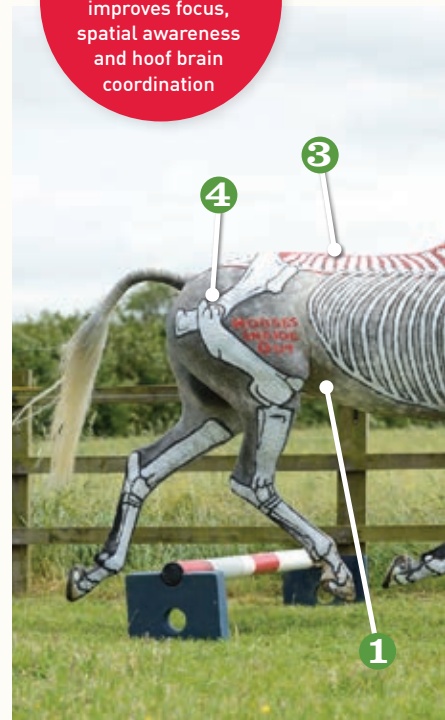
Arranging the poles on a curve develops proprioception and enables the rider to easily vary the distance between them

- 1 Base of neck retracted
- 2 Increased thoracolumbar rotation
- 3 Topline elongated
- 4 Core muscles recruited
- 5 Joint flexion
- 6 Increased back rotation
- 7 Increased rib movement
- 8 Tuber coxae raised
- 9 Back raised and rounded
- 10 Head lowered
- 11 Core muscles recruited



Walking over a series of poles improves rhythm and regularity of the footfalls. It is particularly useful for correcting jogging or an irregular or lateral walk

**TIP**  
Raising poles at alternate ends improves focus, spatial awareness and hoof brain coordination



### 3 Trot poles

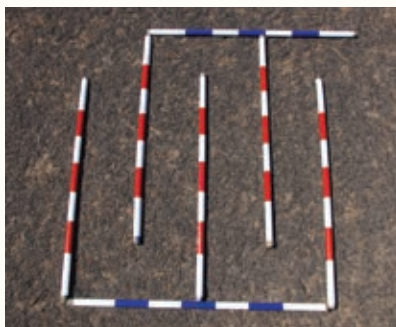
As trot has a moment of suspension and is a higher impact gait than walk, successfully negotiating poles requires increased momentum, flexion in all the limb joints, power and spring.

- 1 Abdominals recruited
- 2 Thoracic sling recruited
- 3 Good thoracolumbar posture
- 4 Hip flexion creates protraction
- 5 Poles raised to knee height
- 6 Base of the neck retracts

**TIP**  
Strengthening a horse's rhomboideus and trapezius muscles can help to prevent them from 'falling in'

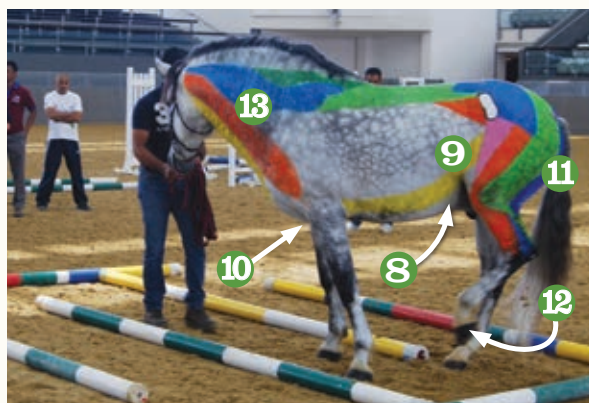
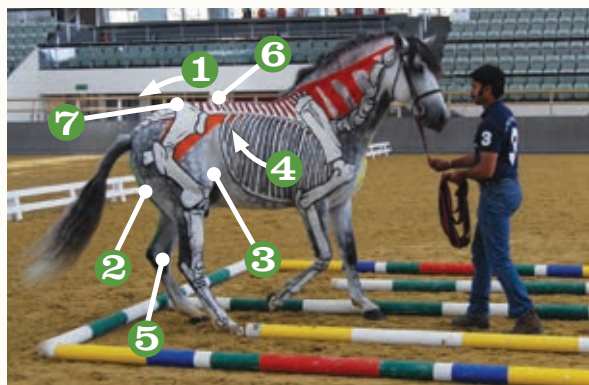


Raising poles on the inside of the curve encourages the horse to lift the inside shoulder, strengthens the rhomboideus and trapezius muscles and prevents him from 'falling in'.



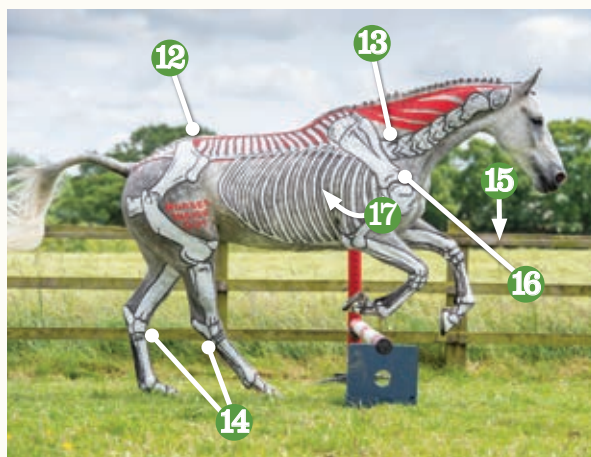
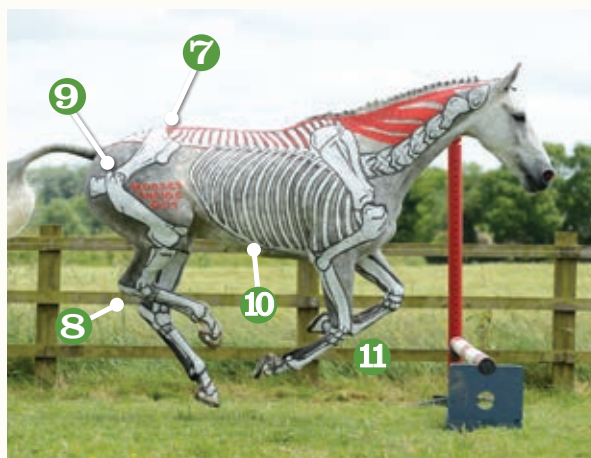
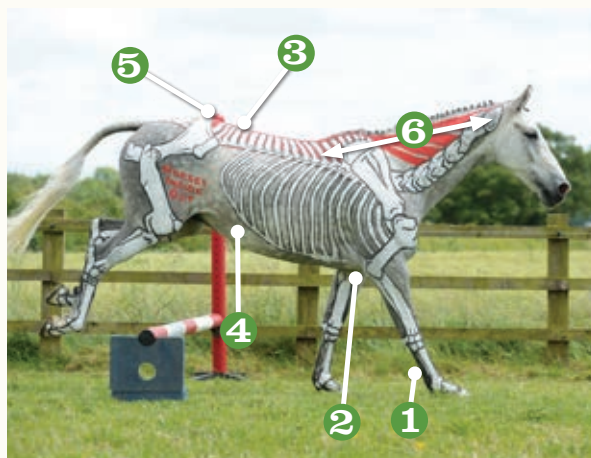
### Grid layout:

- 1 Centre of mass moves backwards
- 2 More weight carried behind
- 3 Lateral flexion
- 4 Increased rib movement
- 5 Increased joint flexion
- 6 Thoracolumbar flexion
- 7 Lumbosacral joint flexed
- 8 Shortened abdominal line
- 9 Rectus abdominis recruited (yellow)
- 10 Thoracic sling muscles recruited
- 11 Gluteals (blue) Biceps femoris (green); stimulated
- 12 Swing phase heightened
- 13 Brachiocephalic (orange), Splenius (blue) Rhomboideus (dark green); control movement



This in-hand exercise encourages and improves lateral suppleness, core control, coordination and proprioception. As the horse must bring his hind and forelimbs closer together to negotiate the grid core muscles are recruited and the back is rounded.

Raised trot poles require core strength to stabilise the back and facilitate increased flexion of the limb joints



Raising the poles alters the footfalls of the canter. This core strengthening and back mobilising exercise can be considered as preparation for a line of bounces.

## 4 Canter poles

Canter poles encourage flexion and extension of the lumbosacral junction and improve rhythm and balance. They are particularly useful for suppling the back and as a rehabilitative exercise for horses recovering from back injury.

### Related distances:

Cantering over two ground poles set at a 6 – 8 non-jumping stride distance gives the scope to increase or decrease the number of strides between the poles. This is good preparatory exercise for collection and extension, adjusting the number of strides in preparation for jumping and improving rhythm and the regularity of steps.

### Raised canter poles:

These are useful for:

- Encouraging rounding of the back, flexion and extension of the lumbosacral junction and hind limb reach
- Strengthening the back and hind quarters
- Strengthening the muscles involved in supporting and raising the forehand
- Recruiting and toning the abdominal muscles, hip flexors and the spinal flexor muscle chain
- Reducing back stiffness.

- 1 Elastic recoil of flexor tendons
- 2 Thoracic sling contracts
- 3 Back muscles raise the hindquarters
- 4 Abdominal muscles contract
- 5 Lumbosacral joint flexes
- 6 Cranial & thoracic vertebrae extend
- 7 Increased lumbosacral flexion
- 8 Good hind limb flexion
- 9 Hip flexion
- 10 Abdominal muscles shortened
- 11 Increased moment of suspension
- 12 Lumbosacral extension
- 13 Base of the neck retracts
- 14 Hind legs push together
- 15 Head lowers
- 16 Increased shoulder flexion
- 17 Thorax moves upwards



Raising the poles on the outside of a curve encourages reach and range of movement in the outside forelimb. This exercise stretches the latissimus dorsi and forelimb retractor muscles, increases the range of movement in the shoulder and elbow joints and is useful for helping straighten a horse with asymmetrical forelimb movement.



This article is in part an extract from Gillian's book, **Posture and Performance**.

If you would like to learn more, you can see the recorded webinar **Poles for Posture** at [www.HorsesInsideOut.com/academy](http://www.HorsesInsideOut.com/academy)



The **Horses Inside Out Academy** is an online learning hub. It's free to join and once a member you can access the free tutorial video channel.

You can also purchase, pick-and-mix style, lifetime access to the recorded webinars, online lecture demonstrations, video courses and presentations. The aim is to provide educational opportunities in applied equine anatomy and biomechanics accessible to everyone, everywhere in the world. **IH**

**i PLEASE NOTE!**  
 .....  
 Canter through a line of raised poles, particularly when ridden, increases the load placed on the limbs. If the horse has a history of lower limb tendon and ligament injury, this exercise should be avoided.