



PAVLOV EQUINE

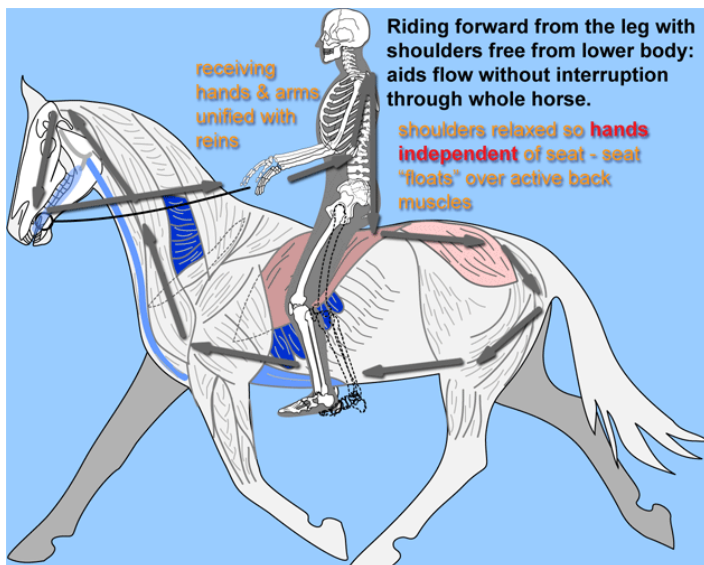
Introducing Pavlov

Pavlov is a patented new device which corrects a rider's position. It consists of a lightweight top containing sensors and vibrators connected to a small control box which is worn around the waist on a belt.

The sensors detect deviation from the ideal position and rather than simply informing the rider like so many devices on the market, Pavlov puts the rider back into the correct position. It does this by applying vibration to a part of the rider's body. People automatically move away from vibration applied to the skin so, if Pavlov determines the person is leaning too far forward, the vibration will be applied to the chest which will cause the rider to correct their position by moving back away from the vibration.

A computer program is used to connect the changes in position to the appropriate vibrator and to manage the timings. There are two versions of the product:

- 1) Personal Pavlov—this consists of a top and control box and is designed for use by one person. Everything can be controlled from the box which contains a rechargeable battery. The data can be downloaded to a smart phone app.
- 2) Instructor Pavlov—this contains a computer program which runs on a laptop and which shows the person's progress by connecting to the control box. It is used by accredited instructors who can train multiple students with this device.



Most people know the correct position, achieving it is the difficult bit!

Quotes from the RHS

"Pavlov is the most innovative product in the show"

"I was so amazed by it at the show, it is honestly all I have spoken about"

"I can see how this is going to improve my position"

"It doesn't just tell you when your position is wrong, it puts you right"

Why is it Different

This is not the first device to help people with their position but most of the them have one thing in common, they try to modify a person's position by showing the person what is wrong and then explaining to them how they can correct the faults. They may use lights attached to joints, video recordings or informed commentary by instructors, it doesn't matter none of them work quickly or effectively. The reason is that people do not learn motor movements through discussion, reasoning or verbal and visual feedback. If this were true, you could "talk" a person into becoming a dressage or tennis champion!

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Personal Pavlov

This is a single user version of the product which requires no computer interface but which can optionally pass the rider's results to a smart-phone app.

It consists of an elasticated light weight top containing the sensors and vibrators (similar to those in a mobile phone). This can be worn under a normal riding jacket and is not uncomfortable.

The top connects to small control box worn on a belt around the waist. The box contains an on/off switch, a function switch where you can choose, front/back, shoulders or hips and a variable knob which sets the thresholds for the top. The thresholds determine how far you can deviate from the correct position before the vibrator is activated. Set them quite wide at the beginning and then make them smaller as you improve.

You just put on the top, set the controls and ride; the top does the rest! Choose the function according to your discipline, e.g. if you are show jumping, don't use the front/back but use the shoulders to keep you straight during the jump.

When you have finished, your data can be down-loaded to an app where you will be able to see your progress over sessions and see how you have been improving.

Did you know

Pavlov is based on the work of the Russian Physiologist, Ivan Pavlov who performed a set of famous experiments with dogs. He showed that pre-wired responses such as salivating to meat powder could be evoked by a neutral stimulus such as a bell if the bell always predicted the arrival of meat powder. This paradigm became known as "Classical" or "Pavlovian" conditioning and our product is based on his work.

The Science

The work of Pavlov and others on human learning shows that motor skills—where you need to learn to adopt a position or a pattern of movement—are best learned through repeated practice; however, practice alone is not very effective as you don't receive any feedback until it is too late. Research shows that when you make an error, the feedback needs to occur within half a second for it to be effective. Pavlov corrects the rider's position well within half a second of them deviating from the correct position. This compares with systems where the rider is filmed and then their errors discussed minutes later—this is why these systems have limited success.

Pavlov also uses the human "withdrawal reflex" to put the rider back into the correct position. This is the primitive reflex that causes you to withdraw from anything hot, cold or vibrating when it touches your skin. It requires no thought on the part of the rider who will simply respond automatically and move back to the correct position.

Pavlov does not remove the need to train your muscles to hold you in the correct position. After using it for 30 minutes you will probably start to tire as your muscles work to hold you in the new position. Keep repeating the sessions and your muscles will quickly strengthen and the new position will become natural.

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Instructor Version

This version of the product is designed for use by riding instructors who may be training a number of people. It includes a computer program which shows the exact position of the rider (see below) and allows the instructor to manually set the thresholds and the session duration. The instructor can tailor sessions to suit the rider and can choose which aspect of posture to work on.

The data for each rider is written to their own data file so individual reports can be produced

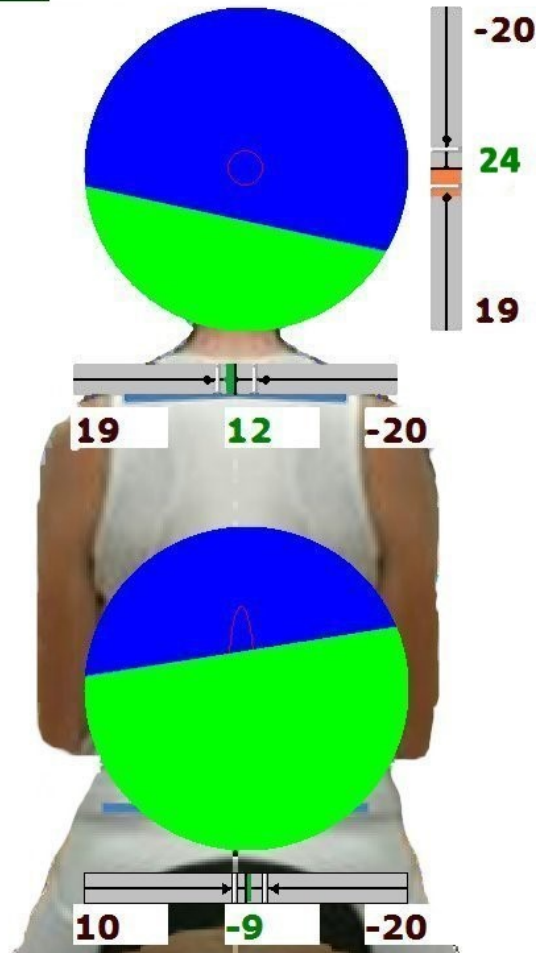
The product allows the rider to benefit from the instructor's skill and experience while the instructor has a tool which will continually correct the rider's posture. This frees him from having to constantly monitor and correct the rider's position—an almost impossible task as he cannot see every slight deviation from the correct position, especially when the rider is the other end of the arena.

The instructor must complete a training course in the use of the product and will then be certified to conduct lessons using Pavlov. The cost of the system can be recouped by charging a premium for lessons with Pavlov

The product is supplied with three tops, small, medium and large and requires a laptop or PC running Windows 7 or higher.



INSTRUCTOR



Battery 8.13
The battery low limit 6 V

online

Active

- Shoulders left/right*
- Shoulders forward/back*
- Hips left/right*

- Walk*
- Trot*
- Canter*
- Jump*

Calibrate

Set the session duration
10 Mins

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Dark Deer Products

Dark Deer staff are qualified in a number of relevant disciplines:

Siobhan Thomson, M.A. is a qualified BHS riding instructor as well being a Centred Riding Instructor. She has been teaching and competing for 15 years and now manages Dark Deer Croft, the equestrian centre where we developed Pavlov. She now teaches riding using Pavlov.

Neil Thomson, B.Sc., M.Sc., PhD performed research at the Cambridge Applied Psychology Unit and specialized in human learning and memory. He was a lecturer at York University before leaving to start a computer software business. He was latterly CTO of Microgen plc where he managed 100 technical staff and was responsible for product development.

This father and daughter team have developed a number of products for the equine industry including the very successful "Dark Deer Timers" for show jumping and "yardapp" which is software for running an equestrian centre and which will be launched soon.

Dark Deer Products—using technology for the equine business

Contact Us

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