

# To full performance after 3 laparotomies in 2 years

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Rehabilitated after laparotomy 2

## 1. Introduction

Val de Mar (VdM) underwent 3 emergency laparotomies over 2 years. The 1:st caused by a lipoma, requiring removal of 6,5 meters of intestine. A year later a 2:nd was needed due to failure of the original anastomosis. 1 year after a 3:rd addressed an intestinal bend caused by a vascular network.

## 2. Objective

To develop a sustainable training method based on the theory explained below and applied for rehabilitation post-laparotomy that prevents hernia and gradually rebuilds the musculoskeletal system to achieve full performance.



Home day 4 after 3:rd laparotomy

## 3. Method

### Nutrition plan:

To reduce early post-surgical colic risk, VdM was initially fed every 3 hours and gradually increasing grazed in hand, later transitioning to a 6-hour feeding schedule.

### Rehabilitation - barefoot:

Training was performed barefoot in order to influence the whole body, with no fixed hoof angles (joints and pedal bone) caused by horseshoes. The 16-week training period began with in-hand work in walk 2x10 minutes/day, increasing with 5 minutes/week up to 1h/day. The search for optimal posture began by influencing the hindquarter angles (pelvis, joints and

hooves). This can be achieved during movement by generating power on a circle and directing the release of force direction, while varying parameters such as circle radius, stride length, stride frequency, speed, acceleration, deceleration and transitions. Timing is essential for a good result.

When the hindquarter angles and the overall posture were close to optimal, training continued with a focus on the forequarter angles (shoulder, joints, hooves). Finally, training focused on coordinating hindquarter and forequarter movements during locomotion until a well-balanced, optimal posture was achieved.

To achieve bilateral symmetry, it was important to change rein frequently. During movement, the travel path of hooves and joints through the air was observed, as well as the landing on the ground, which should be soft and without torsion. Activation of the spinal and abdominal muscles were also monitored. When the body was correctly balanced and carried by the hind- and forequarter, the neck and head could be observed to adopt in a naturally good position, and with the tail correctly uplifted.

***The training method aims to control the horse in all three coordinate planes of movement and to check symmetry during movements in pitch, roll and yaw.***

***When correct posture is achieved, the horse can be observed to move with ease and energy, with fewer counteracting forces, working as one unit in the direction of movement.***

***By optimal posture I mean that the horse has moved his Centre of Gravity to carry the body with optimal movements in all directions. I refer to this as Centred Centre of Gravity (Centred C.G.).***

In order to not unintentionally disturb the horse's posture and c.g. during riding, I also worked on my own posture particularly through achieving a correct pelvis angle with the goal of aligning my posture and c.g with the horse. The goal was to become "one unit" with a common rider-and-horse Centred Centre of Gravity in all three planes.



5 years after 3:rd laparotomy

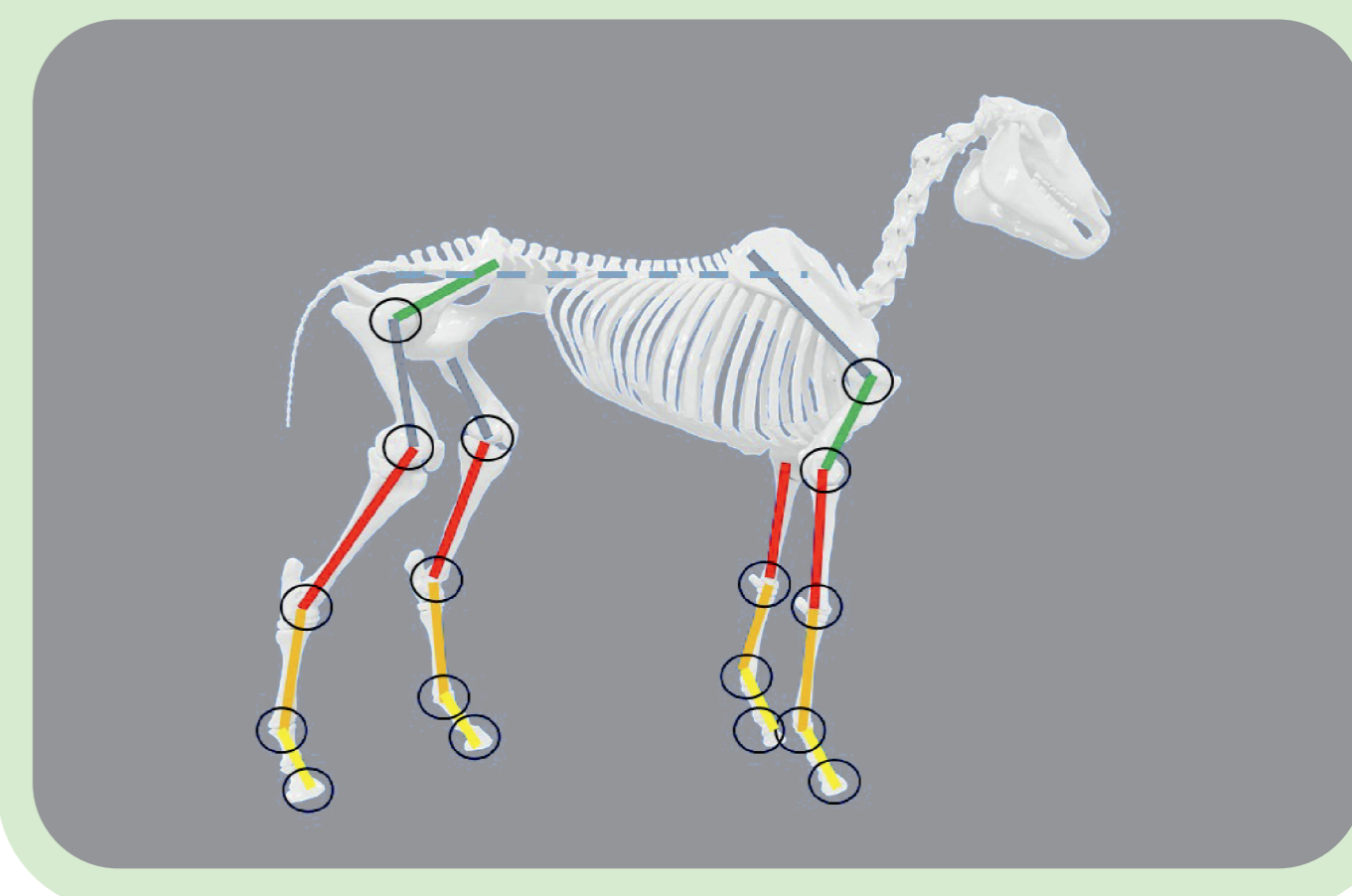
## 4. Results

VdM demonstrated strong muscle development, including a well-formed back and abdomen, more concave soles, and ability to perform piaffe and passage, as a result of the training methods used. After the first two surgeries, he returned to full performance without hernias. Following the third surgery, two minor hernias appeared but reduced with continued riding. ***Val de Mar lived a further eight healthy years.***

## 5. Conclusion

The targeted training method promoted optimal posture and muscle activation, reducing strain on tendons, ligaments, and hooves. The rehabilitation approach proved effective and sustainable, enabling a return to high-level performance. An important observation was that when the horse achieved optimal posture in movement, it moved more relaxed, with increased power, energy and range of motion likely due to reduced counteracting forces.

This training method has also proven effective on other horses with various problems in hindquarters, forequarters, spine, musculoskeletal system and hooves.



Technical support from

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