22 *The flank*

The last of the six compulsory exercises is the flank. It is a two-phase exercise, and the beginning is the same as the moves to go into a vault-off. I will dissect it into different pieces to explain the mechanics in their correct sequence.

Basic score

For the first half of the flank the basic score is set similar to the criteria in the first half of the scissors. If the angle which the vaulter achieves in the up-swing is smaller than 45 degrees, the basic score can not be over 7.0. (The necessary soft landing counts as performance mark.) In the second part of the flank it is the height achieved which sets the basic score, as well as the flight phase: if there is no flight phase after leaving the grips, but the flank was a good height, the basic score can not be over 8.0. A 9.0 needs a good height during the flight phase, and a perfect 10.0 needs a gain in height after leaving the grips. If your vaulting club is just starting out, this will not be your immediate concern...

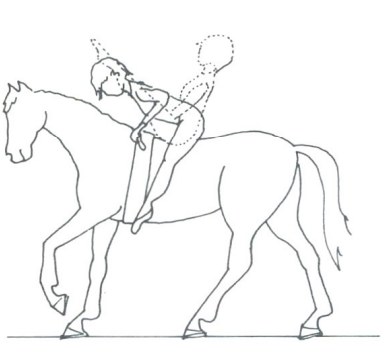
Pre-exercises in training

Important pre-exercises in the flank are the swinging into the handstand with and without partner on the stationary horse. As consideration to the horse is such an important factor in vaulting, I believe that the exercise must be performed quite well on the barrel, before moving onto the live team mate! Those hard landings can really turn a horse sour...and beginners need considerable time for building up the necessary arm strength, as

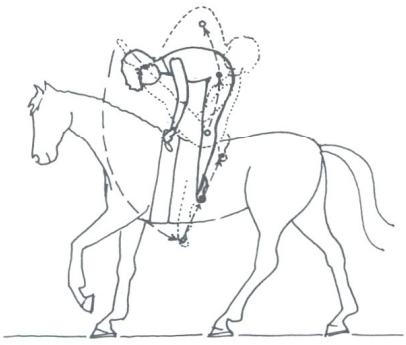
well as for learning the correct technique and timing of the coordination of leg swing and arm push.

A good pre-exercise to coordinate the swing and the arm push, as well as to learn to position the gravity point over the grips correctly, is once again the assisted swing into handstand on the barrel. If the vaulter does his 'nose plant' at the beginning of the swing, he does not have enough strength in the arms yet. If he does it when the assistant pushes him into the handstand, he has a gravity point problem, or both: this makes for the hardest landings on the live horse! The worst mistake (typical beginner's fault) is to swing up without moving the gravity point over the hands – forward – whereas the beginner tries to get his feet up, because this is how he perceives he should gain height, and the feet are in the back! If the gravity point is too far back, the arms can't push up, but will rather push the vaulter backward. So he is in the wrong position, has *no* arm control and crashes into the horse's sensitive kidney area. To avoid this, you must explain to the vaulter that we are much more concerned with the hips coming up than the feet. So we train what we call the 'pop-up' exercise.

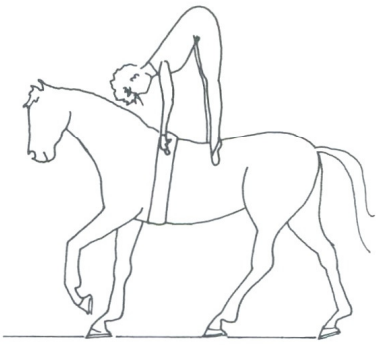
Here the vaulter takes a quick and precise pre-swing and downswing, with acceleration in the downswing. The movement of the feet stops abruptly behind the surcingle and propels the hips up into the air. This means that the upper body, which tilts with the swing motion, has tipped enough at this point so that



At the lowest point of the down-swing, the weight is transferred onto the hands



Pre-exercise for scissors and flank (all swing exercises) the 'Pop-up'



Hips have 'popped' to the highest position, the gravity point is entirely over the hands. The vaulter can stop in mid air

all the weight is over the vaulter's hands: theoretically the vaulter could hold this position without leaning the legs against the horse's side. It is a handstand position, although the legs are not extended. Later the vaulter will learn to extend them by straightening the legs in the hip joint, but this will not change the technique of bringing the gravity point over the hands at the correct moment in the swing.

When the vaulters have practised this enough, they will be able to land their feet on the horse's back by leaving them extended in a relaxed manner. First they will land them toward the croup, then be able to bring them toward the surcingle closer and closer. The swing will bring their hips up (which is their main weight) and the arm push will be able to maintain them in this position, because the gravity point is exactly over the hands and the position is balanced.

The second pre-exercise takes this arm control one step further. It is really the proof to the vaulter of whether he actually *has* his weight (his gravity point) over his hands. Make him perform a regular up-swing as described under the first half of the flank, then, sometime *after* he has piked in his hip joints, clap your hands to make him stop in mid air! With a correctly aligned gravity point the vaulter will be able to hold such a position at any given point during the phase of coming down. This is of course necessary for controlled soft landings.

First phase

- *The pre-swing*: Note that a deduction of up to 2.0 points is possible (for performance) for moving the buttocks back too far, to evade the difficulty in the swing. The swing must start out of the seat position. The flank begins with a pre-swing of both legs, which should be carried according to the ~~to the maximum~~ possible extension for the vaulter. To achieve this, the upper body leans back slightly, but with straight back, and the grip of the hands becomes lighter. The motion does not stop at the highest point, but reverts into the downswing at once and in one fluid motion.

- *The downswing*: If any use is to be gained from the downswing, it must accelerate, achieving the fastest speed at the lowest point, just like a golf club. It is very clear that the energy which the vaulter does *not* put into the acceleration of the downswing, can also *not* come out of that swing at the other end! Note on the illustration, how the upper body follows the motion of the swinging legs: again the vaulter must shift his weight to move the gravity point over his hands during the swing, so he can exert an arm push straight up (not backward) and maintain control of the movement and body weight throughout the whole flight phase. Otherwise he will not be able to land softly.

- *The up-swing and arm push*: After the downswing (to the lowest point) follows the through- and up-swing, the arm action must kick in with the push. This can happen as soon as the vaulter has transferred his weight to his hands. Up to this point the swinging curve is basically a circle with the same radius around the hand-hip-point.

  But now, as the arm push kicks in, and the up-swing starts, the curve gets flatter, with a larger radius the more the arms extend. The legs can only come up to best height, if the shoulders go down. For training purposes I consider it better if the vaulter collapses on the neck of the horse, rather than

cheating his way around the push! The highest extension possible is the handstand position, but even if this can be reached, the motion should *not* stop here. Remember: there should be *no stops* in dynamic exercises.

By the apex of this up-swing at the latest, and while the vaulter has his weight fully over his hands and supports himself only with his arms, the legs must be closed, and must now stay together and fully stretched with pointed toes, until the very end of the exercise. The vaulter now bends sharply in the hip joints and the legs (still together) fold down and point to the ground. The weight is over the hands, so again, theoretically the vaulter should be able to stop the down motion at any given time! If not, the gravity point is not in the right spot and there is no arm control to break the landing impact.

To come down into the inside lady's seat is therefore not a fall: the vaulter can control the speed and breaks the impact by first touching the horse's side with his right foot, then gliding down over calf and thigh. His shoulders continue to face the front, and the hips will rotate ideally just a moment before he softly settles into the inside lady seat. To achieve this, he must continue a strong arm support all the way down! The seat must then be erect and the weight must rest on both buttocks evenly, the head must be high, legs long and together and both to the horse.

(*Please see the drawing on pages 144/5 for the up-swing before the pike of the hip.*)

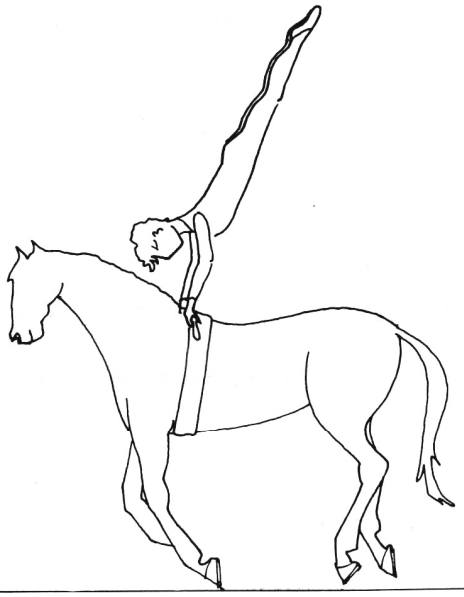
Second phase

- *Pre-exercises*: As in the first phase, the most important aspect is the correct weight transfer of the gravity point to over the vaulter's hands. Since this feels very different for beginners out of a sideways seat, train 'whole–part–whole' again. To achieve height is much easier if the vaulter leans slightly over the outside shoulder of the horse, while his shoulders, aligned

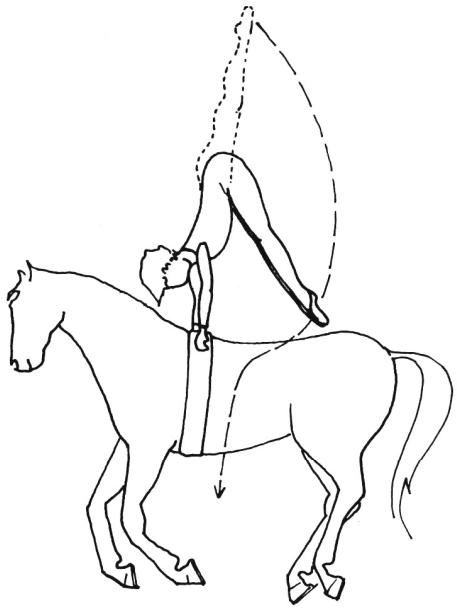
with the horse's, come down. In the ~~pre~~ down-swing the vaulter rolls onto his right hip and stretches both legs. Exercise this swing without the push-off: let your vaulter swing both legs, together and closed, to the point over the croup, then separate them to settle down gently into the riding seat again. The push-off for the flight phase can be trained separately by a simple vault-off to the outside.

- *The swing*: The second phase of the flank is begun with as little delay as possible after the first one. Try to teach your vaulters from the beginning that the whole flank should be fluid, so they don't waste too much time in between the two phases, but insist with beginners on one deep breath and a second of concentration! If they hurry going into the second phase without any mental preparation, it will most likely not be well performed. Experienced competition vaulters however should not delay for longer than approximately four canter strides between the two phases.

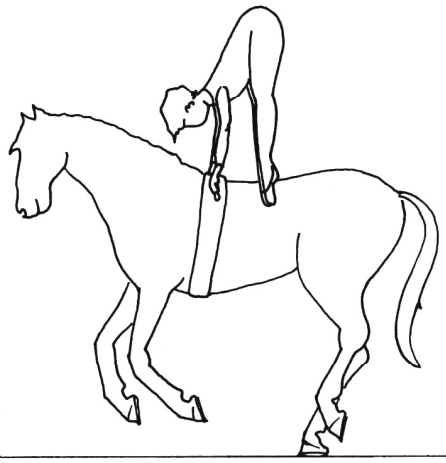
  The second phase begins with a forward swing of both legs, straight and together, upper body leaning only slightly and back staying straight. The more height can be achieved in this pre-swing, the more momentum can be gained in the downswing, which again means more height in the up-swing, just as we discussed in the first phase. As the vaulter is now sitting sideways, he has to take care to balance and exert arm control, so as not to slide off to the inside. The technique of the weight transfer is the same as before. The arm push kicks in as soon as the vaulter has shifted his weight sufficiently to the hands, and continues to the apex of the flight and beyond (as already explained in connection with the vault-off and the scissors), but this time the vaulter leans his shoulders slightly over the outside shoulder of the horse, to make up for the sideways seat. The legs must stay together the whole time; they may *not* separate in the second up-swing to gain additional height! Separating the legs means evasion of difficulty, and a



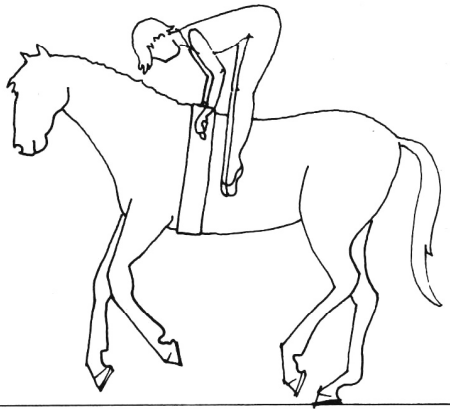
The fluidity of the up-swing should not be arrested in a static handstand. (This is not a static exercise)



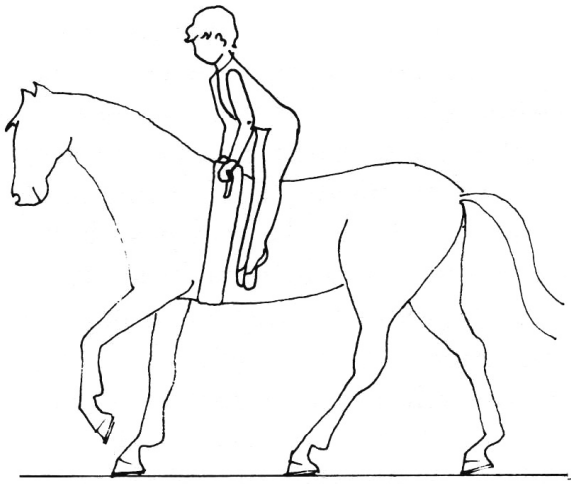
At the highest point the body is piked and all the weight must be directly on arms and hands



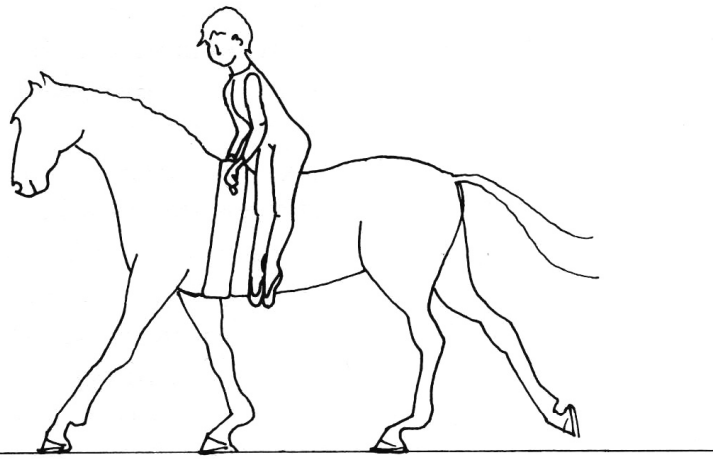
The vaulter must have such control to break the down movement that he can glide down slowly and gently, touching first with the right foot...



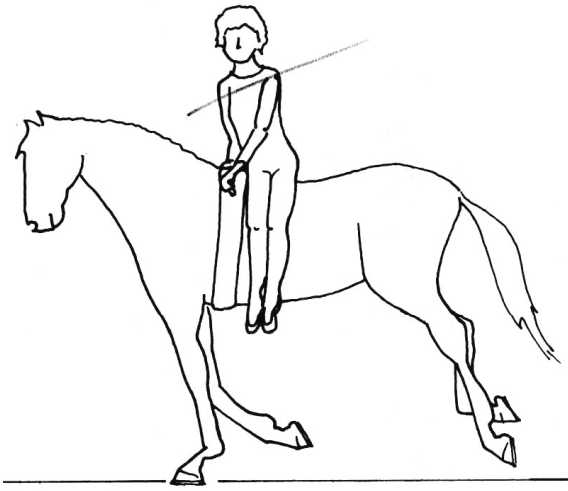
...then slide along the outer side of the right leg. Ideally the vaulter should be able to stop the movement anywhere in between on command – that is the arm control which ensures the horse's comfort



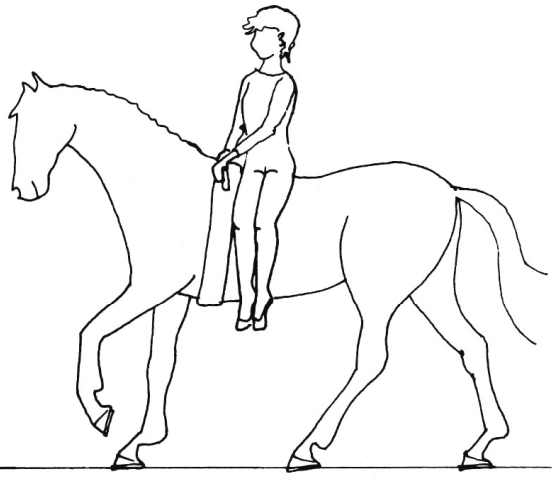
The hip is turned sideways only briefly before landing in the side seat



This hip movement must then be executed quickly to be fully rotated into side seat...

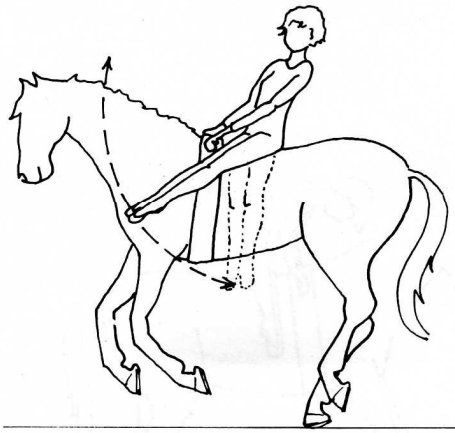


In this drawing the shoulders should already be turned more to the front

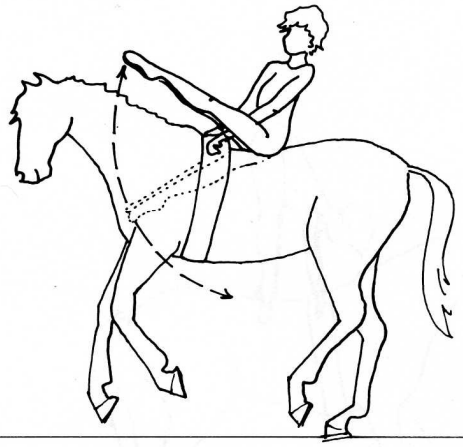


...before settling down. Correct side seat in the flank is different from the mill. Shoulder and head must face the front. Both legs are closed and to the horse alongside the surcingle. Supple hips absorb the movement of the canter

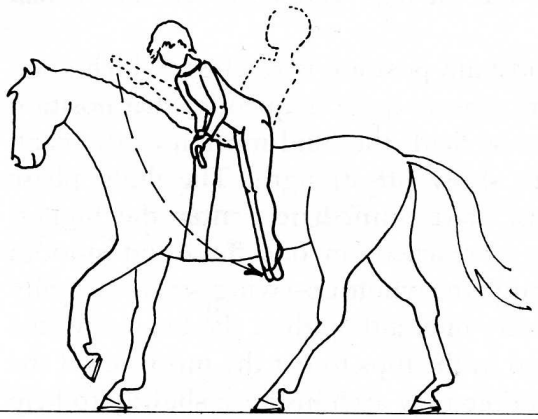
The correct flank: second phase



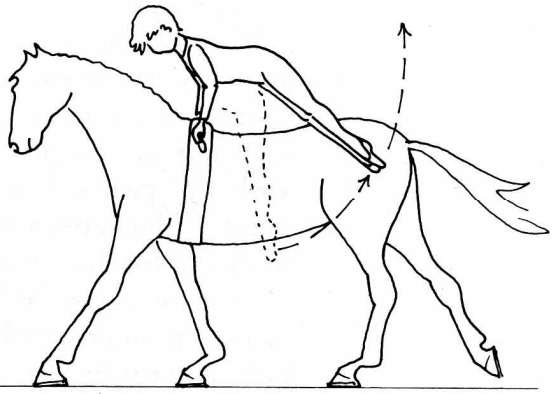
While going into the up-swing, the upper body may lean only slightly and the seat may not be swished back to facilitate the swing



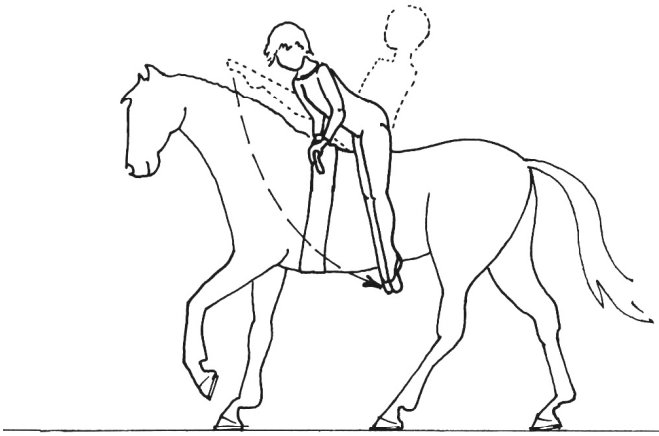
The vaulter must sit on both buttocks while swinging, then roll onto his right hip



The legs must accelerate in the down-swing and the weight is transferred onto the arms as the buttocks lift off



The gravity point must be over the hands, the arms and hips are stretched to full extension in the up-swing



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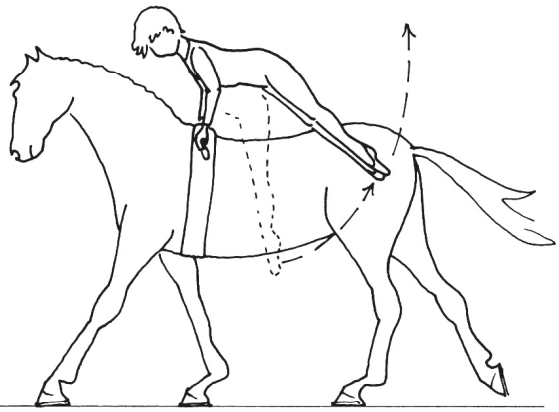

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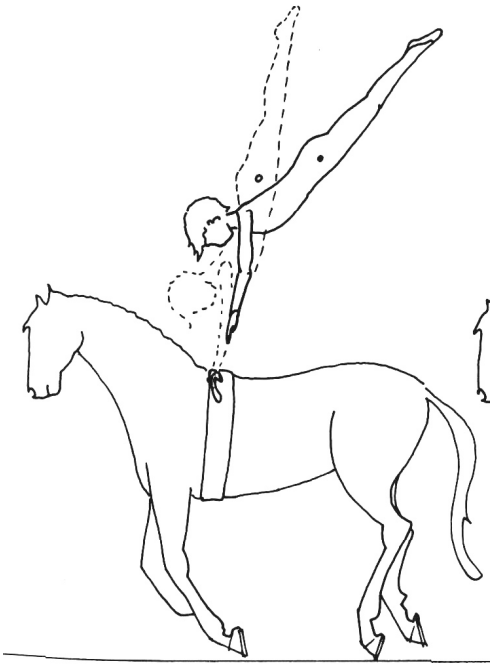
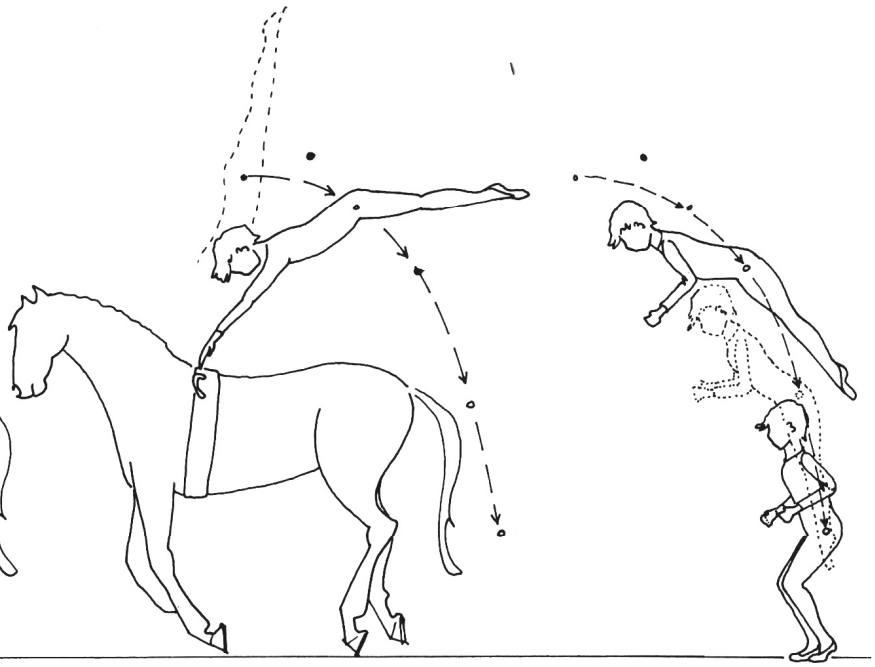


At the apex the vaulter must push away from the grips energetically with both arms to achieve a flight phase. For best scores additional height should be gained here



In the flight phase the body rotates around its gravity point. The vaulter lands softly, absorbing the impact with feet, ankles, knees and hips, and continues forward running motion. The vaulter should land on the outside and away from the horse, approximately at level with the hindquarters

flank will be scored better, if the height achieved is not quite the handstand position, but the legs were together, rather than the opposite!

If the height of a handstand position is reached, which good and very strong vaulters achieve quite frequently, that position should nevertheless not be held, the fluid motion of the flank may not be stopped to show off strength! The flight phase with the push-off must start immediately after the highest point in the up-swing is reached, in one fluid and smooth motion. Note how through the whole up-swing we are basically aiming for a straight body line, although at the beginning the vaulter is slightly kinked in the hips to get the most out of the kick, and toward the end he may arch his back slightly to help the arm push. Hollow backs however are not permitted to gain additional height for the feet!

- *Flight phase*: At the apex of the up-swing then, the flight phase starts, which is similar to the one described in the vault-off. The legs must still be (and stay) together and stretched, feet pointed. The arms now push away from the grips with an energetic movement and the body describes a curve in the air before landing clear of the horse and on the outside, with an erect body and soft knees. The vaulter absorbs the shock of the landing by using *all* joints involved (balls of the feet, ankles, knees hip), and then continues running forward in a fluid motion.

  You will frequently see vaulters gripping the lower part of the outside handle for the push-off in the flight phase. There are no rules about how to grip the handles – let your vaulters try out what feels best to them, and how they think they can achieve best push-off and height.

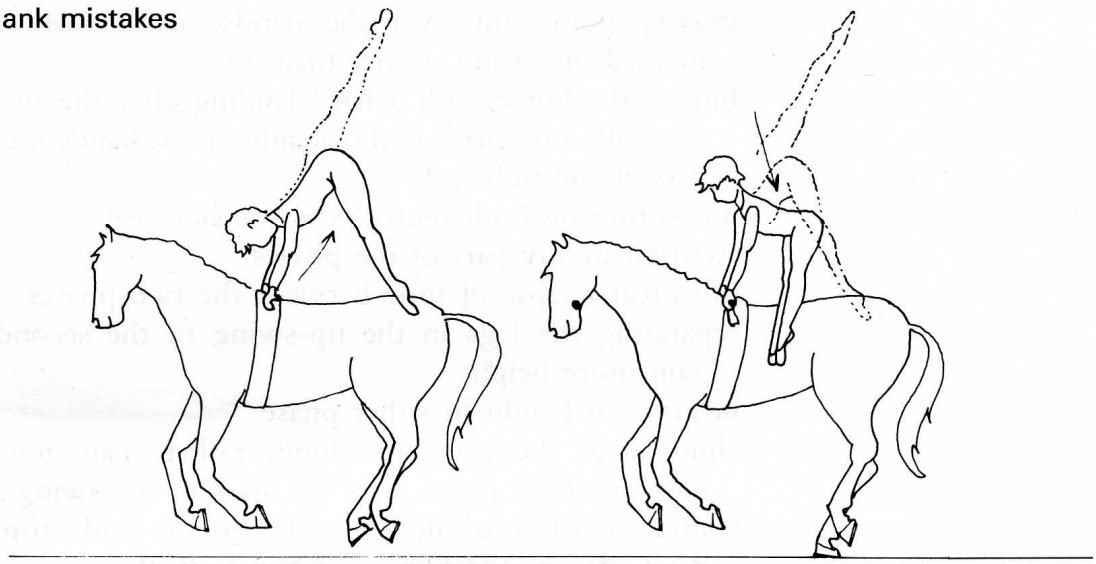
Common mistakes

not bringing the shoulders down to swing the legs up, and arching the back to make up for it

gravity point not over the hands: arms push the vaulter toward the croup, rather than up
hitting the horse with a hard landing after the first phase of the flank, not carrying the weight on the hands and absorbing it over the right calf
not sitting on both buttocks in the side seat
twisting in any part of the phases
too great a lapse of time between the two phases
separating the legs in the up-swing of the second phase to gain more height
insufficient height in either phase
clinging to the grips too long, rather than going straight into the flight phase after the apex of the swing is reached
landing hard into the ground with a dead stop after the flank off or stumbling and touching the ground with the hands after coming off

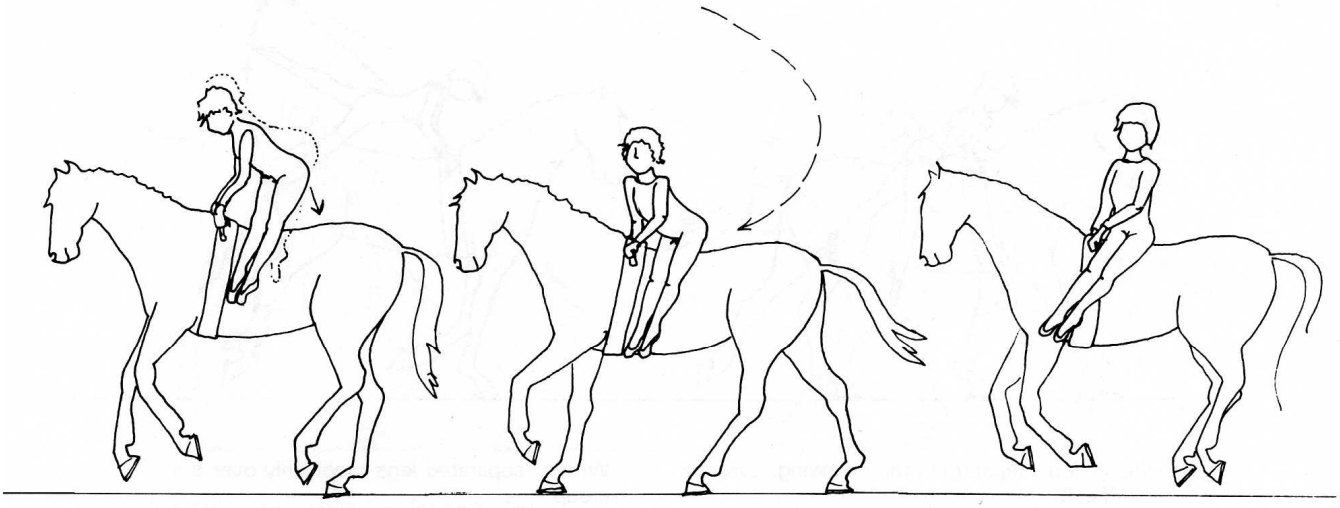
With the completion of the flank, the blocks of the compulsory exercises are finished. In a normal competition, this will be followed by the kur after the horse gets an adequate break. This is the case in Individual Vaulting Competitions, as well as for Team performances. Only *pas-de-deux* performances do not include compulsory exercises in the requirements.

Common flank mistakes



Wrong: gravity point not over hands: the vaulter pushes himself toward the croup. No arm control, therefore hard landing, too far back

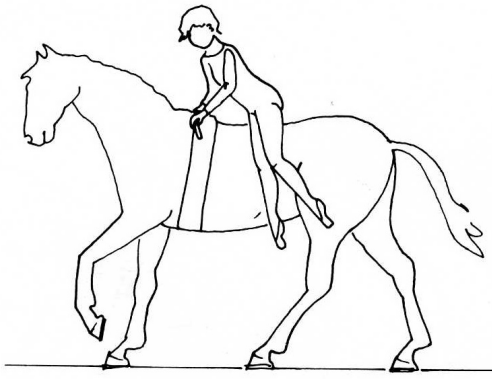
Wrong: weight not over hands, hard landing



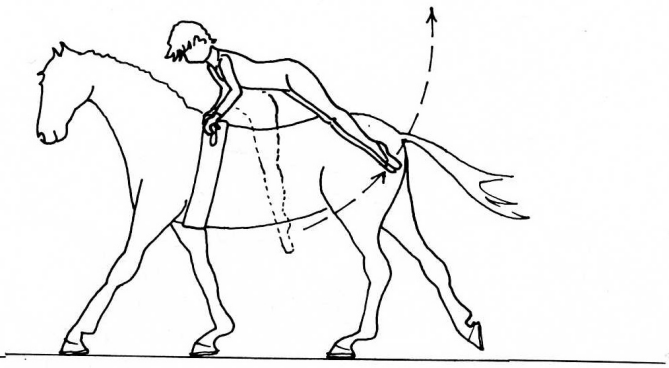
Wrong: hard landing too far back, hip turned in too early

Wrong: vaulter settles in from too far back, no arm control. Arched back and hard landing

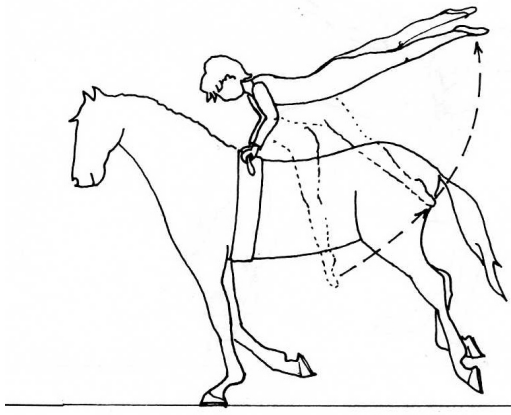
Wrong: motion is not controlled: the legs continue to swing past the surcingle after landing



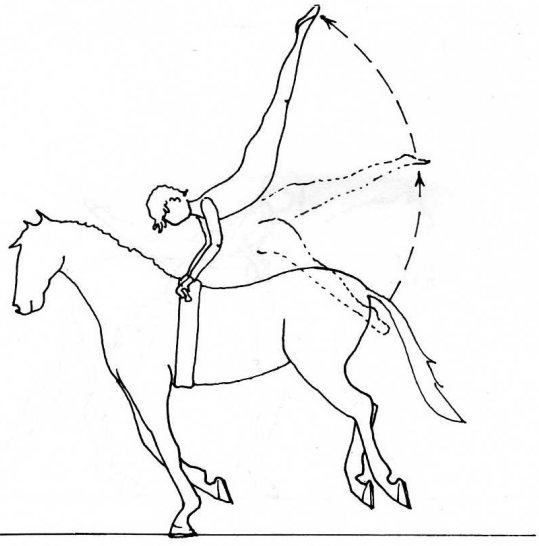
Wrong: gravity point too far back, legs separate during landing. Seat corrections will be necessary



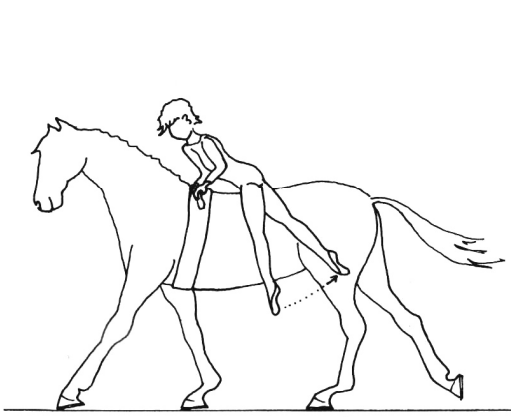
Wrong gravity point in the second up-swing: the vaulter pushed to the back, rather than up



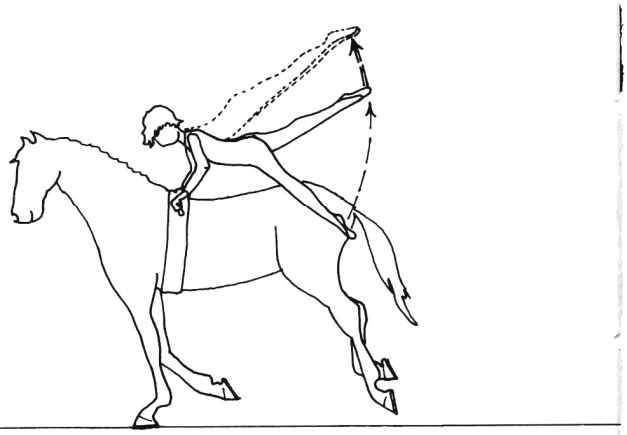
Wrong: full height can't be reached as the weight is not over the vaulter's hands. Legs are separated



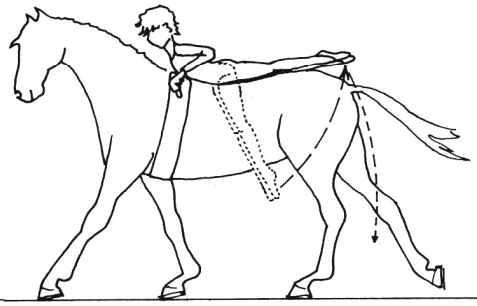
Wrong: gravity point is slightly back, over-arched back in an effort to make up for lost height



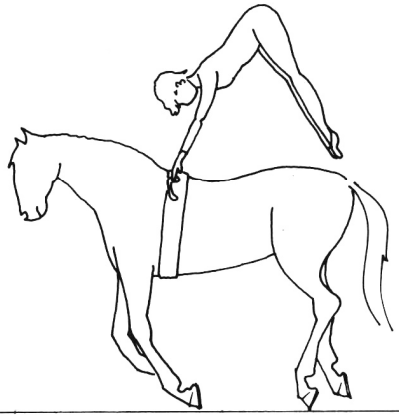
Wrong: legs separate in the up-swing. Evasion of difficulty



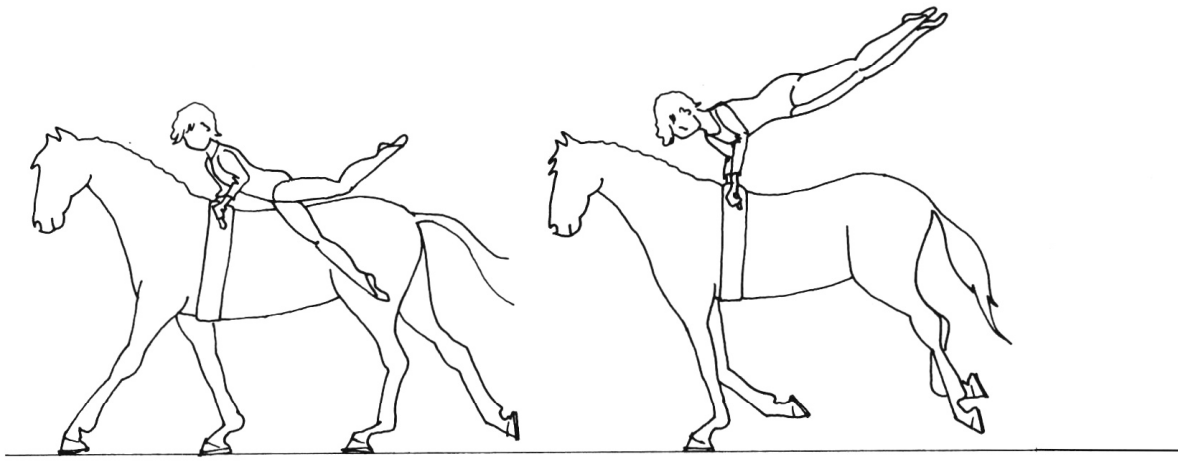
Wrong: separated legs meet only over the croup



Wrong: no arm push, vaulter does not clear the horse. Arched back

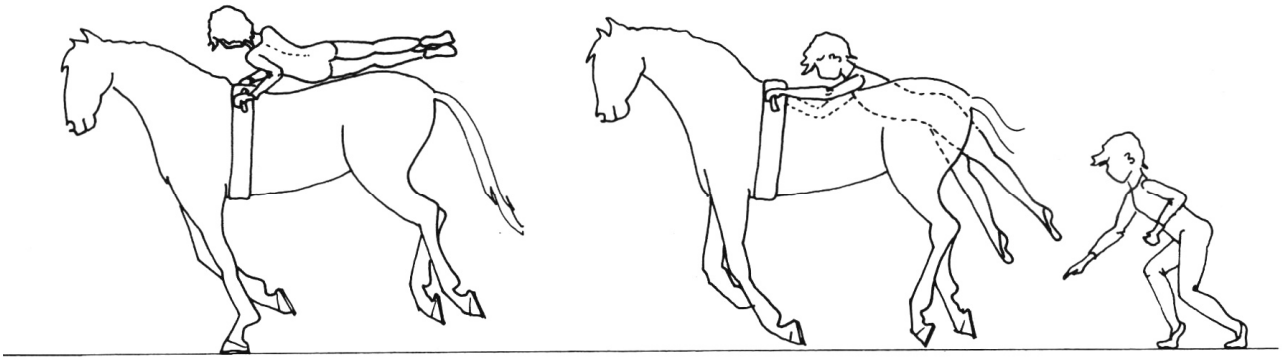


Wrong: excessive piking during flank-off



Wrong: vaulter turns to inside during swing: twisted bodyline, bent and separated legs

Wrong: vaulter twists during flight phase



Wrong: collapse of supporting arms, vaulter does not clear the horse and twists in an attempt to make up for it. No flight phase

Wrong: clinging to the grips instead of push-off: no flight phase, vaulter gets dragged. This often results in a fall, i.e. touching the ground with hands or knee