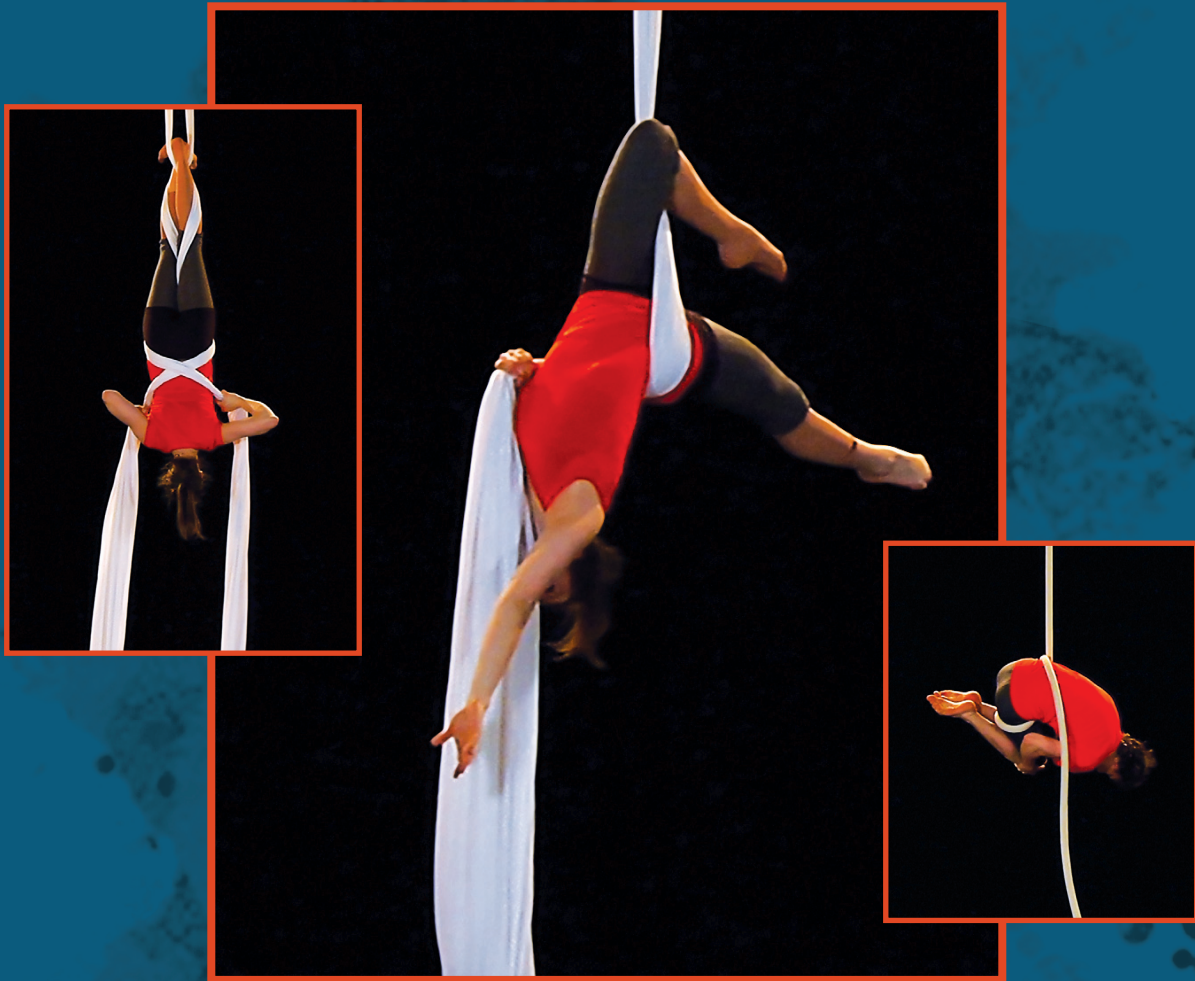


# BASIC TECHNIQUES IN CIRCUS ARTS



## ROPE AND SILK



FONDATION  
CIRQUE DU SOLEIL™



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\* The masculine form is used in this text generically and for readability purposes only.

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# FOREWORD

## NATIONAL CIRCUS SCHOOL

Based in Montreal, the National Circus School is an institution for secondary and higher education whose primary mission is to train circus artists. It is the only institution in North America to offer a complete training cycle in circus arts, starting with the preparatory program, followed by the Circus and High School Studies program, and culminating in the higher education program (leading to the Diploma of Collegial Studies in Circus Arts). Since 1981, more than 400 artists have been trained at the School. A pioneer in the revival of circus arts in Canada and North America, the School has contributed to the emergence of Quebec's great circuses, which were to become *Cirque du Soleil*, *Cirque Éloïze* and *The 7 Fingers*, and has lent a helping hand to numerous foreign circus companies.

Today, the National Circus School enjoys a unique position in the world of circus arts instruction. With a team of more than 60 teachers providing a wealth of educational and artistic experience in circus arts, acrosports, performing arts and education, the School is regularly invited to share its expertise at educational exchanges, meetings and symposia in Canada and abroad, especially those organized by the International Network for Social Circus Training (INSCT), the European Federation of Professional Circus Schools (FEDEC), the European Youth Circus Organisation (EYCO) and the American Youth Circus Organization (AYCO).

With the enthusiasm for social circus, the spread of circus arts as a recreational activity and the overwhelming demand for qualified personnel, the School believed it was essential to support the development of services providing high-quality, safe introductory courses and training programs in the circus arts. Since 2004, its Instructor and Trainer programs – leading to an Attestation of Collegial Studies and recognized by Quebec's Ministère de l'Éducation, du Loisir et du Sport (MELS) – have trained some 100 teaching professionals. These teachers are actively involved in all areas of circus instruction, the education of young people, leisure activities, social circus and even the specialized training of professional artists.

In addition to the skills needed to introduce circus techniques, the role of a circus arts instructor – whether for recreational activities or social outreach purposes – requires particular knowledge of safety issues and of an individual's stages of motor, psychological and social development as well as the ability to organize and manage a class. This manual is intended as a useful and relevant educational tool, but it certainly does not replace actual training for teaching the circus arts. Although these techniques are essential for performing circus arts, these disciplines also need creativity and poetry in order to be truly artistic and meaningful, and this is true at both the professional and amateur levels.

On behalf of the teachers and professionals who were so enthusiastic and thorough in putting together the content of this manual, I would like to thank *Cirque du Soleil* for its generous contribution to the development of an educational work of this magnitude. By taking part in circus arts and with the help of qualified personnel, it will certainly help a great number of young people to achieve their potential more easily.

**Daniela Arendasova**  
Director of Studies  
National Circus School  
Montreal





# INTRODUCTION

The practice of circus arts implies knowledge of and proficiency in one or several techniques, which usually requires progressive and ongoing learning. Use of these techniques opens up a wide range of possibilities intended to develop physical abilities, as well as creative potential and social skills.

Today, there is growing interest in using circus arts for purposes other than performance and shows. Professionals involved in the fields of leisure and recreation, humanitarian development, mental health and physical rehabilitation are watching the development of current initiatives with great interest.

As the learning of these techniques is set to develop in various areas, and with rising interest in circus arts as a recreational pursuit, it seems appropriate at this time to develop a document that fulfils the need for technical knowledge, while also ensuring that learning is done in safety and progressively, according to the basic techniques in the circus arts.

We also believe that this document will be useful to all those organizations involved in the teaching of circus techniques. Circus schools, recreational circus programs, acrobatic gymnastics federations and the educational sector in general can use the knowledge and information contained here to improve their own teaching.

## **Collaboration between National Circus School and *Cirque du Soleil***

This multimedia educational kit brings together 17 circus disciplines and 177 technical elements. Written with the help of teachers at the National Circus School, it recommends and outlines the principles of teaching basic circus arts techniques. Illustrated by NCS students, this work recommends gradual development of skills and the mastering of various basic circus techniques.

## **The work comprises two main parts: written documents and video documents.**

**Written documents:** The written part of *Basic Techniques in Circus Arts* comprises 17 chapters, each corresponding to a colour-coded discipline. Every chapter is divided into two sections. The first section introduces the terminology specific to the discipline, the equipment required and, specific information, as well as advice about safety and the prevention of injury. The second section illustrates in detail the different technical elements that constitute the discipline. This section comprises a description of the technical elements, detailed explanations of the movement, educationals enabling step-by-step learning of each component, tips for manual aids, corrections and corrective exercises addressing the most common mistake and variants of the movement.

**Video documents:** The video part of *Basic Techniques in Circus Arts* is intended to promote a better understanding of the written material and to provide a visual aid to learning. To make it easier to find information, the colours used for the disciplines in the written documents correspond to those on the video documents. Similarly, the photos shown alongside the explanations of the movement, the educationals and the variants are taken from the video documents. When necessary, close-ups and slow motion are used to make it easier to understand more complex technical positions and quick sequences. When movements are displayed, extra information or warnings about safety or injury prevention will pop up onscreen.



For practical reasons, the section on “Common Mistakes” is not included on the DVDs so that the focus is on showing the correct way of performing the movements. The educational elements required for learning the various technical elements however, are presented in the video documents. In any case, the written document must be consulted to see the complete list of educational elements.

All the exercises contained in the written documents and videos are presented in such a way so as to ensure they are performed as safely as possible (ideally under the supervision of an instructor or coach), with proper preparation and using the right equipment.

**The written and video documents included in *Basic Techniques in Circus Arts* are complementary: they were designed to be used together. The written documents contain information that is not available on the video documents. Likewise, the video documents allow a fuller understanding of the movements that is not possible from consulting the written documents alone.**



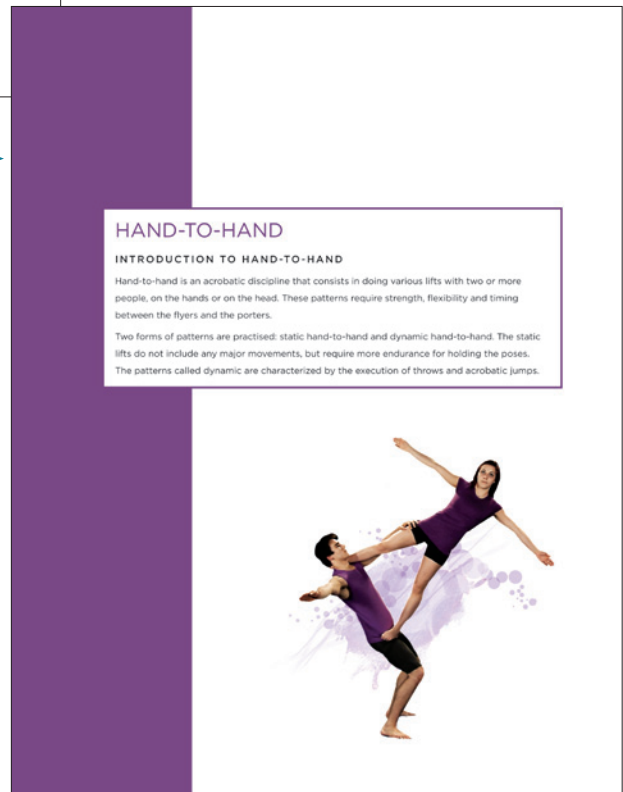
# INSTRUCTIONS - WRITTEN DOCUMENTS



## Introduction

The first page of each chapter describes in general terms the specifics and characteristics of each discipline.

Each discipline is colour-coded. The different colours, corresponding to those used on the video documents, make it easier to find what the user is looking for.



**TERMINOLOGY**

**Centre of mass (COM)**  
Point in an individual's body where the body mass is considered to be concentrated and where the three axes of rotation meet.

**Closed foot**  
Position with the foot straight on the wire.

**Demi-pointe**  
Maintaining a standing position on the balls of the feet.

**Frame**  
A-shaped structure that allows anchoring the wire while lifting it off the ground.

**Open foot**  
External rotation of the foot of approximately 45°.

**Retirés**  
Action of flexing a leg, bringing the foot up and placing it on the knee of the opposite leg.

**Wire**  
Cable on which one walks.

**EQUIPMENT**

- A cable (the wire) to walk on;
- Two A-frames to anchor the cable;
- Side cables;
- A hand-operated winch to tighten the wire;
- A spring;
- Shackles for assembly;
- A floor mat the length of the wire and at least 1.40 m wide.



Side cables      A-frame

2      Basic Techniques in Circus Arts - TIGHTWIRE - © 2011 Cirque du Soleil

## Terminology

The technical terms essential to understanding the elements specific to each discipline.

In-depth terminology research was carried out in conjunction with teachers at the National Circus School in Montreal to determine the most commonly used expressions and terms in circus and acrobatic communities.

## Equipment

The equipment needed to practise the different disciplines covered.

## Specific Information

Specific information needed to practise the discipline and essential for performing the technical elements properly, bringing together such topics as identifying the dominant side when performing twists and body positions in aerial phases.

## Safety

Essential information to consider when training with the aim of minimizing the risk of injury.

These points are specific to each discipline and are of the utmost importance. They concern both the instructor's role and the work environment.

**TERMINOLOGY**

**Aerial silks**  
Fabric rigging, generally made of Lycra, folded in half and hung from an anchoring point, on which the acrobat executes various acrobatic patterns.

**Flexed feet**  
Position with the ankle in flexion.

**Hip flexion**  
Action of bringing the legs and the upper body together, or decreasing the torso/leg angle.

**Iliac crest**  
Flat bone forming the upper edge of the pelvic bone.

**Pike inverted hang**  
Hip flexion in the inverted position.

**Rope**  
Aerial rigging made up of a twisted or braided cotton rope with a diameter of 3 to 5 centimetres, positioned vertically and from which the acrobat executes various acrobatic patterns.

**SPECIFIC INFORMATION**

The rope and silk practice is performed on a vertical axis, which requires sustained physical endurance. The participant is constantly subjected to gravity; the challenge is to limit the loss of height while executing placements and to find combinations that limit the necessary manipulations and the inevitable need to climb back up again.

The practice of these two disciplines requires general muscular endurance and develops good muscle tone. It specifically requires upper body strength in the arms, shoulders and abdominals, as well as grip strength.

**Note:** In order to simplify the text, the word "rope" will be used in the descriptions to designate both rope and silk, except for the parts specifically dedicated to silk.

**SAFETY**

As rope and silk allow plenty of room for freedom, creativity and exploration, safety remains the only real rule. Consequently, the equipment must be in good condition and properly installed. Also, it is essential to always use a landing mat. The instructor should be aware of his limitations and be able to assess those of the participants.

Rope and silk are practised without a lunge or safety device, but with a landing mat. It is therefore necessary to ensure that an element can be performed completely, which includes controlling both the movement and the release. During the descent, despite the use of a landing mat, the possibility of deliberately falling should never be considered.

Since rope and silk can cause abrasion burns, it is recommended to wear suitable clothing that covers the legs and torso as much as possible. Despite these precautions, it is normal for people new to these disciplines to experience some discomfort. The rope and silk may cause cramping of the feet, thighs and torso, and may sometimes cause minor burns to the feet or other exposed parts. In order to increase grip and limit involuntary sliding, a resin powder is used, applied to the hands and, if necessary, to the feet and back of the knees.

2      Basic Techniques in Circus Arts - ROPE AND SILK - © 2011 Cirque du Soleil





**ACROBATICS**  
**MENICHELLI**

**Technical Element Description**  
Rotating 180° around the transversal axis, going into a handstand and finishing with a walkout.


**Prerequisites**

- Back walkover.
- Handstand with stride split.
- Walkout.

**Explanation of the Movement**

- From the standing straight position with the arms on either side of the head, rock backwards slightly and lower the arms. Flex the arms until they are in line with the body and extend the legs and hips. **M 1**
- Transfer the COM over the hands and go into a handstand with the legs in a stride split, with the gaze on the hands. **M 2**
- Walk out and get back to the standing straight position, with the gaze forward. **M 3**

**Note:** Once the leg push is finished, the arms should remain aligned with the body.



Basic Techniques in Circus Arts - ACROBATICS - © 2011 Cirque du Soleil

## Technical Element Description

A concise description explaining the nature or the key movements of the technical element in question.

## Prerequisites

Figures, body patterns and technical skills to master before starting to learn the element.

## Explanation of the Movement

A detailed description of the different sequences of movements making up the element.

Identified by the icon **M**

These explanations are illustrated by one or more photos. The use of numbers added to the letter **M** allows the user to follow the sequences represented visually: **M 1, M 2, etc.**

## Safety Notice

In addition to the information provided in the first section, the safety notices set out essential aspects to consider when performing the movement in order to avoid injury.

**PYRAMIDS**  
**EGYPTIAN PYRAMID**

**Technical Element Description**  
Seven-person pyramid.


**Prerequisite**

- Flyer standing on a porter in a sumo pike position.

**Explanation of the Movement**

- Four porters are positioned next to one another in a sumo pike position, interlacing their legs with those of neighbours so as to stabilize the base of the pyramid and form a straight line. Their backs must be horizontal and all at the same height. **M 1**
- A first flyer gets up on the two central porters supporting himself with his hands on their backs, ascending either directly or by stepping on a porter's thigh. Once up, the flyer puts one foot on each of the central porters' pelvises and rests his hands on their shoulder blades. Two other flyers repeat this sequence, one positioned on the left porters' backs and the other on the right porters' backs. **M 2**
- When the three flyers are stable, they lift their torsos so as to have their backs horizontal. Simultaneously, porters and flyers extend their arms out to the side, resting on their neighbours' shoulders, if they have a neighbour. The porters complete the sequence by straightening their legs. **M 3**
- During the descent, the flyers again put their hands on the porters' shoulder blades, then jump backwards one after the other, from the centre, avoiding any sudden movement.

**Safety Notice:** It is important to have a landing mat behind the pyramid in case of falls. In this case, the participant should fall on the person below. This way, the speed and height of the fall will be reduced.



Basic Techniques in Circus Arts - PYRAMIDS - © 2011 Cirque du Soleil



**Educationals**


1. One person holds the diabolo with his hands and moves it so that the participant practises corrections with the handsticks. The diabolo is corrected with the hand that provides the rotation speed, that is, the right hand. While correcting it, continue to give it speed by making up-and-down movements with the right hand. **ED 1**

Three corrections:

1. Stand facing the diabolo; if it turns, follow it.
2. If the diabolo leans inward toward the feet, move the right hand forward; the string will then rub the diabolo's cup and the diabolo will straighten out.
3. If the diabolo leans toward the outside, move the right hand back; the string will then rub the diabolo's cup and the diabolo will straighten out.

Corrections should be made more quickly with practice and therefore should become increasingly smaller.

2. Roll the diabolo along the ground using the handsticks and lift it into the air.



**Manual Aid**

- The spotter stands behind the participant and manipulates the handsticks with him, providing the rotation speed and applying the corrections.

Common Mistakes	Corrections and Corrective Exercises
1. From the beginning, the participant places the diabolo on the wrong side on the ground.	1. Placing the diabolo on the correct side. If the participant wishes to manipulate it with the right hand, it is placed on the right side.
2. The participant is badly positioned.	2. Staying facing the diabolo.
3. The participant waits too long to make a correction.	3. Correcting the diabolo from the first signs of instability. With practice, one will be able to anticipate corrections.
4. The diabolo becomes unstable and loses speed.	4. Always providing speed when applying the correction.
5. The participant overcorrects and tips the diabolo.	5. Making small correction movements.

6 Basic Techniques in Circus Arts - DIABOLO - © 2011 Cirque du Soleil

## Educationals

Step-by-step exercises and sequences of movements recommended to successfully perform the technical element. They make the principle of progressive learning easier, focusing on coordination and physical preparation as well as concentrating on the movements.

Identified by the icon **ED**

These educationals are often illustrated by one or more photos. The use of numbers added to the letters **ED** allows the user to follow the sequences represented visually: **ED 1**, **ED 2**, etc.


## Manual Aid

Assistance that the instructor or the spotter should provide when teaching the movements. The images allow the user to see the movements to make and the actions to take to ensure learning is carried out safely.

Identified by the icon **MA**

**Manual Aid**

- To assist the participant, the instructor stands with his arm solidly extended into a fist in front of the participant. The participant supports himself on the fist, trying to let go of it for as long as possible. **MA 1**
- The instructor should not hold the participant by the hips, because he will not control his balance.



Common Mistakes	Corrections and Corrective Exercises
1. The participant's arms drop during the half turn.	1. Developing the reflex of lifting the arms during the half turn. <b>EX</b>
2. The participant puts too much weight on the right foot.	2. Keeping the COM over the left foot. The right foot must assist in the turn.
3. The participant bends his body.	3. Bending the knee of the left leg more, lifting the arms.

**Variants**

1. Sequence: Walking, half turn at the end of the wire, walking.
2. Sequence: Four half turns in the middle of the wire.


Basic Techniques in Circus Arts - TIGHTWIRE - © 2011 Cirque du Soleil

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### HANDSTAND THE "L" SIT

**Technical Element Description**  
Sitting up straight with the legs extended with support on the hands.



**Explanation of the Movement**

- Press the hands into the ground with the index finger facing forward and the COM over the palms of the hands. Keep the legs together and outstretched with the feet pointed. Press with the arms while contracting the abdominals and bring the pelvis slightly backwards.

**Educationals**

- "L" sit on canes or on parallel bars.
- "L" sit with the legs tucked.


**Manual Aid**

- Watch out for possible backwards falls, especially when the exercise is done with balancing canes or when the participant lifts the legs very high.

Common Mistakes	Corrections and Corrective Exercises
1. The participant cannot lift the legs.	1. Performing strengthening exercises for the abdominal muscles. EX
2. The participant cannot keep the arms straight.	2. Turning the hands toward the outside, the index finger facing front.

**Variant**

- "L" sit with legs in a straddle position. V 1



Basic Techniques in Circus Arts • HANDSTAND • © 2011 Cirque du Soleil

## Common Mistakes

The most common mistakes to avoid.

## Corrections and Corrective Exercises

Modifications to make either by correcting movements or by corrective exercises.

The corrective exercises are identified by the icon EX

## Variants


Images illustrating the technical elements give the user the opportunity to progress and to vary his learning.

Identified by the icon V

**Manual Aid**

- The instructor puts his hand on the participant's ankle to make sure the angle of his knee does not exceed 90°, otherwise the participant could fall. MA 1



**Note:** Avoid pressing too hard on the leg; the angle should not be tighter than that of the double knee hang position. If the trapeze is higher, the instructor puts his hands under the participant's shoulders.



Common Mistakes	Corrections and Corrective Exercises
1. The participant lets the free hip and leg fall and has difficulty returning the knee to the bar.	1. Keeping the hips even throughout the movement.
2. The participant stays in a pike position and has difficulty maintaining a secure knee angle.	2. Opening the hips by tightening the buttocks and pressing the pelvis forward, pulling the heels toward the buttocks.

**Variants**

- Front leg to the side in a split. V 1
- Arabesque: Leg to the back, foot pulled toward the head. V 2





Basic Techniques in Circus Arts • FIXED TRAPEZE • © 2011 Cirque du Soleil



### ROPE AND SILK HANGING

**Technical Element Description**  
Secure hanging of the silk.



**Explanation**

- Always anchor the silk onto a steel part, preferably circular, with an inner circumference of a minimum of 9 centimetres and a diameter of 1.5 centimetres. The ring should be forged and not welded. A pear- or oval-shaped part is also acceptable if it conforms to the same criteria; make sure the part has a sufficiently wide base to prevent the silk from moving up.

**Set-up**

- Fold the silk lengthwise into two equal parts and nestle the ring in the fold. Wrap the ends of the silk around the ring from the outside and bring them through the centre of the ring, from front to back, under the centre of the silk.

<p><b>Common Mistake</b></p> <ol style="list-style-type: none"> <li>Using an aluminum alloy part, intended for a use other than anchoring. For example, using an "eight-shaped" descender for mountain climbing, which is a part that is too small and also more fragile than steel since it is made of alloy.</li> </ol>	<p><b>Correction and Corrective Exercise</b></p> <ol style="list-style-type: none"> <li>Obtaining the equipment from a supplier specialized in acrobatic rigging.</li> </ol>
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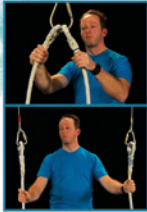
## Maintenance and Rigging of Aerial Devices

Information on the set-up, maintenance and safe rigging of aerial devices.

Information found at the end of the chapters of each of the aerial disciplines.

### FIXED TRAPEZE RIGGING AND MAINTENANCE

**Technical Element Description**  
Secure rigging, maintenance and storage of the trapeze.



**Explanation**

**Rigging**

- Basic rigging:** Make sure the carabiners are screwed downward. The structure or system to which the trapeze is anchored must be checked by a rigger or engineer.
- Adjustable-height trapeze:** There are two methods for safely attaching a trapeze onto an adjustable-height system:
  - Safety knot for the ascender;
  - Pin rail fastening knot.

**Maintenance**

- Trapeze maintenance is done at least once a year.**
- Considering how the trapeze is used, it is important to check the rope-bar attachments under the sleeve. The fabric should be unstitched and the padding material should be unwrapped in order to check the welds, shackles, thimbles, cables and ropes, and replaced if necessary.
- Periodically, the tape on the bar should be changed if it becomes too slippery, dirty or dry, or if it starts to unroll. Take care to always remove the old tape and any excess adhesive from the bar before replacing it. Stretch the tape while covering the bar to prevent forming folds.

**Storage**

- Store in a clean and dry place. Both ropes must be rolled up; avoid rolling them too tightly or folding them.

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# INSTRUCTIONS - VIDEO DOCUMENTS

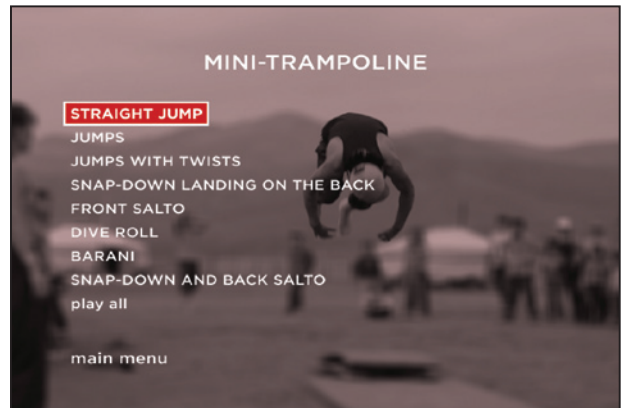


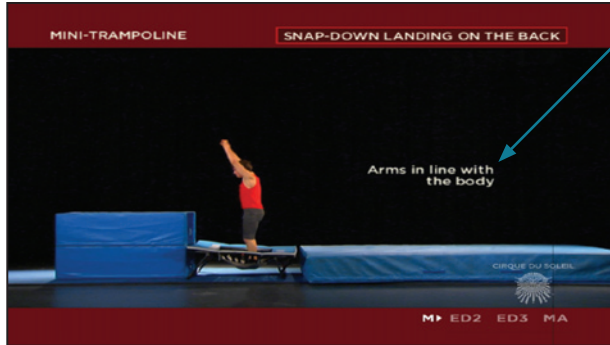
## Main Menu

After the opening sequence, a first window presents the disciplines covered on the DVD.

## Elements Menu

Once a discipline has been selected, a second window allows the user to go from one technical element to another. The “play all” button, at the bottom of the window, provides the option to watch the elements one after the other.



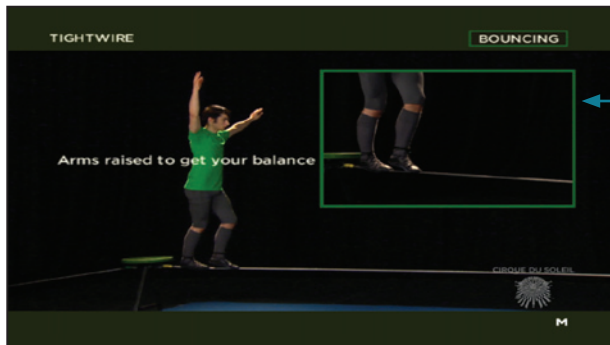
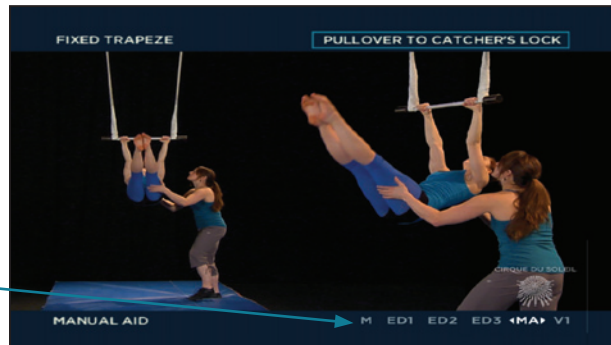


## Warnings

Extra information or warnings about safety or prevention of injury pop up onscreen at key moments while the movements are being viewed.

## Icons

When highlighted, the icon corresponding to the one in the written document indicates the technical element component being played.



## Close-ups

In some cases, special attention is given to an image, part of the body or manual aid as a movement is being demonstrated by showing a close-up or by showing the movement from a different angle.

## Technical Notes

The different parts of the element may be viewed out of sequence using the “Skip” function to select the icons at the bottom of the screen. The slow-motion function, available on most DVD players, also allows the user to watch each movement more closely.





## ROPE AND SILK

### INTRODUCTION TO ROPE AND SILK

Both rope and silk are aerial disciplines done from static apparatuses, without swinging, which mainly allow executing two categories of technical elements: static poses and dynamic acrobatic movements, also called drops.

During a performance, these two categories of elements are linked choreographically, according to the context, by images, movements, role-playing or characters that serve to give both colour and vitality to the act, to vary the rhythm and to create combinations that integrate the necessary sequencing for drops and static poses.

## TERMINOLOGY

### Aerial silks

Fabric rigging, generally made of Lycra, folded in half and hung from an anchoring point, on which the acrobat executes various acrobatic patterns.

### Flexed feet

Position with the ankle in flexion.

### Hip flexion

Action of bringing the legs and the upper body together, or decreasing the torso/leg angle.

### Iliac crest

Flat bone forming the upper edge of the pelvic bone.

### Pike inverted hang

Hip flexion in the inverted position.

### Rope

Aerial rigging made up of a twisted or braided cotton rope with a diameter of 3 to 5 centimetres, positioned vertically and from which the acrobat executes various acrobatic patterns.

## SPECIFIC INFORMATION

The rope and silk practice is performed on a vertical axis, which requires sustained physical endurance. The participant is constantly subjected to gravity; the challenge is to limit the loss of height while executing placements and to find combinations that limit the necessary manipulations and the inevitable need to climb back up again.

The practice of these two disciplines requires general muscular endurance and develops good muscle tone. It specifically requires upper body strength in the arms, shoulders and abdominals, as well as grip strength.

**Note:** *In order to simplify the text, the word “rope” will be used in the descriptions to designate both rope and silk, except for the parts specifically dedicated to silk.*

## SAFETY

As rope and silk allow plenty of room for freedom, creativity and exploration, safety remains the only real rule. Consequently, the equipment must be in good condition and properly installed. Also, it is essential to always use a landing mat. The instructor should be aware of his limitations and be able to assess those of the participants.

Rope and silk are practised without a lunge or safety device, but with a landing mat. It is therefore necessary to ensure that an element can be performed completely, which includes controlling both the movement and the release. During the descent, despite the use of a landing mat, the possibility of deliberately falling should never be considered.

Since rope and silk can cause abrasion burns, it is recommended to wear suitable clothing that covers the legs and torso as much as possible. Despite these precautions, it is normal for people new to these disciplines to experience some discomfort. The rope and silk may cause cramping of the feet, thighs and torso, and may sometimes cause minor burns to the feet or other exposed parts. In order to increase grip and limit involuntary sliding, a resin powder is used, applied to the hands and, if necessary, to the feet and back of the knees.





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## ROPE AND SILK

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## ROPE AND SILK BASIC CLIMB

### Technical Element Description

Climbing technique using the arms and legs together.

### Prerequisite

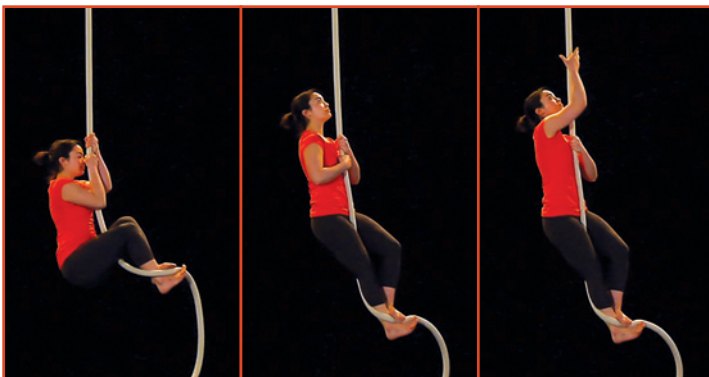
- Hanging from the rope by the hands.

### Explanation of the Movement

- Standing, grasp the rope above the head. For the silk, pull a little bit to give it some tension. Bring the rope between the legs first, and then wrap it once around the leg from the outside. **M 1**
- Keep the foot of the support leg flexed and clamp the rope between the upper part of this foot and the sole of the free foot. Slide the support leg up, still wrapped around the rope, then grip the rope with the foot of the free leg. Push the body upward using both legs. **M 2**



M 1



M 2



## Educational

1. Standing on the mat, without trying to climb up, grip the rope, roll it and clamp it with the free leg.

## Manual Aid

- The instructor maintains a slight tension at the bottom of the rope to make climbing easier. **MA 1**



MA 1

### Common Mistakes

1. The participant wraps his support leg with the rope from the outside.
2. The participant uses only arm strength.
3. The participant has trouble supporting his weight when gripping with the feet.
4. The participant cannot grip the rope between his feet while the support leg is still flexed.

### Corrections and Corrective Exercises

1. Making sure the rope goes between the legs first, from front to back.
2. Insisting on pushing with the legs.
3. Staying still as long as possible in the climbing position. Using bent elbows instead of hands to support on the rope.
4. Making sure the rope is securely wedged between the feet while both legs are still bent, then pushing.

## Variant

1. Change legs.





## ROPE AND SILK FROG WRAP

### Technical Element Description

Static inverted pose. Hanging by the knees like a frog.

### Prerequisites

- Hanging from the rope by the hands.
- Pike inverted position.

### Explanation of the Movement

- In the start position, pull up with the arms, with the rope along the body. Lift the pelvis and open the legs to either side of the hands to get into the pike inverted position. **M 1**
- Hook the left knee above the hands. Let go with the right hand, look down and find the lower end of the rope. Bring the rope over the thigh into the hollow of the right knee. Flex the knee on the rope and let go with the left hand. **M 2**
- To undo the position, bring the torso back to vertical, bring the right hand under the left knee and grasp the rope. Slowly unhook the left knee once the movement is completed and the knee is released. Grasp the rope with the left hand again.

**Note:** This explanation is for frog wrap to the left. For frog wrap to the right, reverse sides.



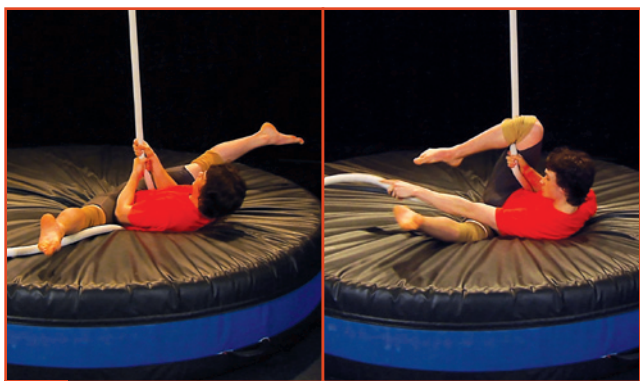
**M 1**



M 2

## Educational

1. Do the frog wrap lying supine on a mat. **ED 1**



ED 1

## Manual Aid

- The instructor supports the participant's lower back while participant is executing the pike inverted position. **MA 1**
- The instructor helps the participant to grasp the lower part of the rope and bring it over his free leg. **MA 2**



MA 1



MA 2



### Common Mistakes

1. The participant swings into the pike inverted position with the rope either between the legs or on the wrong side.
2. The participant does not correctly hook the rope with the upper knee, either not high enough or not securely enough.
3. The participant tries to bring the rope behind the lower leg only.

### Corrections and Corrective Exercises

1. Making sure the rope is on the correct side before rocking back. The rope is on the right for a frog wrap to the right, and vice versa.
2. Closing the knee above the hands, at an angle of at least 90°.
3. Remembering that the rope must go over the lower back, the groin and the inner thigh of the lower leg.

### Variant

1. Additional turn: With the lower leg extended, add one turn of the rope around the bottom of the leg.





## ROPE AND SILK

### HIP KEY

#### Technical Element Description

Lateral static position, perpendicular to the rope, the torso and legs closed.

#### Prerequisite

- Hanging from the rope by the hands.

### Explanation of the Movement

- In the start position, pull up with the arms, with the rope along the right side of the body. Using the left leg, move the lower part of the rope under the right leg. **M 1**
- In order to slide the rope toward the upper part of the left thigh, bring the left leg into a split and higher than horizontal. The rope will go under the right thigh and over the left groin. **M 2**
- Make a quarter turn to the right to put the hips on the upper part of the rope and get into tuck position. **M 3**
- One can cross the left leg over the right leg in order to help maintain the position.

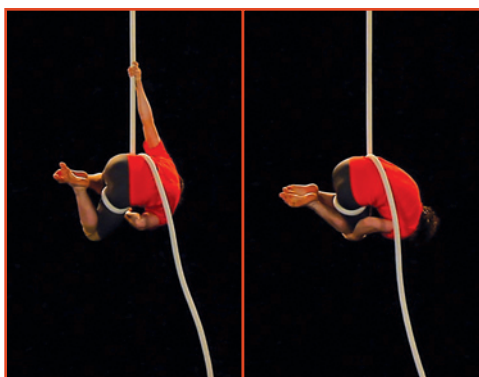
**Note:** These explanations are intended for hip key to the right.



M 1



M 2



M 3





## Educational

1. Standing on the mat, bring the rope manually to the right side under the right thigh, between both legs from back to front and over the left groin. Take the lateral tuck position, with the pelvis against the rope. Try the position at just a few centimetres from the floor. **ED 1**



ED 1

## Manual Aid

- The instructor helps the participant bring the rope over the top of his thigh, toward the groin.
- The instructor helps the participant do the quarter turn of the pelvis.

### Common Mistakes

1. The participant does not lift the legs high enough to slide the rope to the pelvis.
2. The participant has trouble doing the quarter turn to complete the position.

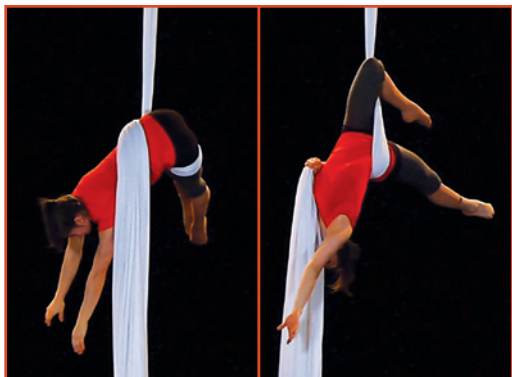
### Corrections and Corrective Exercises

1. Rocking the shoulders back a little to help lift the legs.  
Doing abdominal strengthening exercises. **EX**
2. Extending the rotation beyond the quarter turn until the participant is facing the floor.

## Variant

1. Mermaid: From the hip key to the left, take the lower end of the rope with the left hand and the upper part with the right hand. Rock gently downward and hook the rope with the left knee, without letting go with the left hand, but releasing the right. Extend the right leg into arabesque. **V 1**





V1





## ROPE AND SILK INVERTED HANG

### Technical Element Description

Inverted vertical static position with the hands free and the legs extended.

### Prerequisites

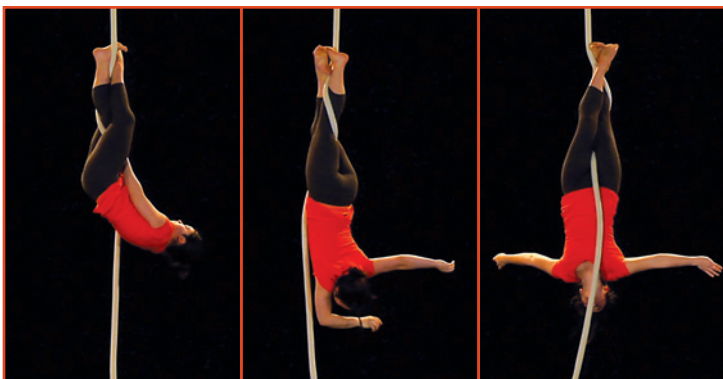
- Hanging from the rope by the hands.
- Pike inverted position.

### Explanation of the Movement

- From the pike inverted position, wrap one leg around the rope. The rope will go from bottom to top inside the thigh, outside the knee and inside the foot. **M 1**
- Once in place, keep this leg extended with the foot flexed. Cross the free leg over the leg wrapped around the rope, so as to grip the rope between both thighs and then release the hands. **M 2**
- To undo the position, grasp the rope again, release the legs and return slowly to vertical.



M 1



M 2

### Educational

1. Lying supine under the rope, do the position without supporting the body weight.

### Manual Aid

- The instructor supports the participant's lower back, if necessary, while the participant is executing the pike inverted position.



### Common Mistakes

1. The participant does not bring his pelvis high enough before wrapping the leg around the rope.
2. The participant does not keep his leg completely wrapped around the rope.
3. The participant does not clamp the rope tight enough between his thighs.

### Corrections and Corrective Exercises

1. Pressing the pelvis against the hands before wrapping the leg around the rope.
2. Pressing the heel upward, extending the leg.
3. The instructor must tell the participant that the main support is provided by clamping the rope with the thighs.





## ROPE AND SILK FROG WRAP WITH HALF-TWIST

### Technical Element Description

From the frog wrap position, dynamic movement with lateral half turn, unrolled by gravity.

### Prerequisite

- Frog wrap position.

### Explanation of the Movement

- From the frog wrap to the left, at a minimum height of 2 metres from the mat, take the lower end of the rope and bring it under the stomach and behind the back, so as to wrap around the torso once. **M 1**
- Hold the lower end of the rope in the right hand. Unhook the upper leg. The body will drop a half turn to the left. The turn will be automatically stopped by the wrapping of the rope around the thigh and the torso. **M 2**
- To get out of the position, return to vertical and drop the lower end of the rope.



**M 1**



**M 2**

## Educational

1. Lying supine on the floor, do the whole position. Simulate the start, roll to the side to visualize the movement and observe the position of the rope on the thigh at the finish.

### Common Mistakes

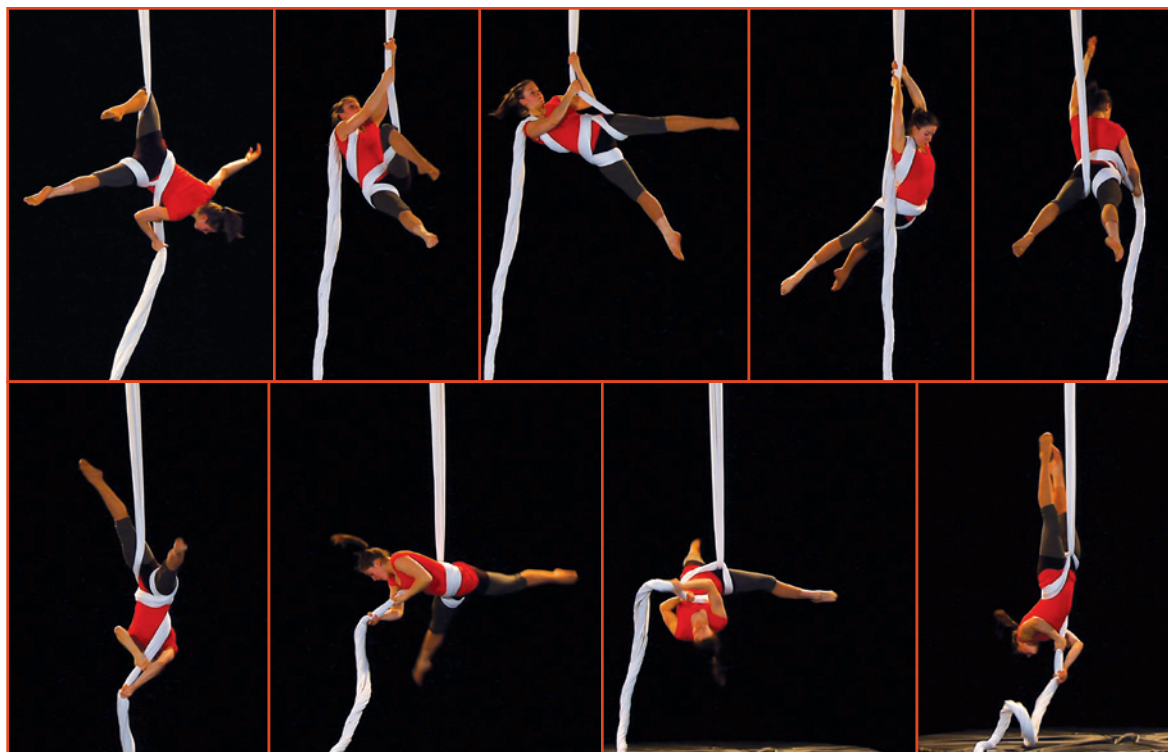
1. After getting into the frog wrap position, the participant forgets from which side he should wrap the rope around the torso.
2. At the start of the drop, the participant tries to get the torso vertical, which adds an undesirable rocking movement to the twist.

### Corrections and Corrective Exercises

1. Bringing the rope over the stomach first.
2. Looking at the floor at the start of the movement.

## Variants

1. Half-twist, back on the rope: Climb up by pulling the arms over the support knee until vertical position is reached. This movement allows getting the back onto the rope and initiating the drop to the front. At the start of the drop, hold the lower end of the rope with the hand. The final position will be identical to that of the half-twist. **V 1**
2. Half-twist, pelvis on the rope: Once in frog wrap position, put the lower end of the rope over the shoulder. Grasp the upper end of the rope with the left hand below the right knee and then remove this knee. Do a quarter turn to the right and put the pelvis against the rope, like in hip key. **V 2**



**V 1**





V 2





## ROPE AND SILK BUTTERFLY

### Technical Element Description

Inverted vertical position with the legs wrapped.

### Prerequisite

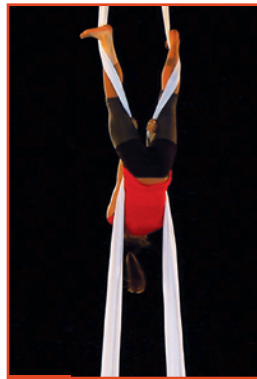
- Pike inverted position.

### Explanation of the Movement

- Hanging by the hands, each hand hooked to one silk, get into pike inverted position, with the legs on either side of the silks. **M 1**
- Wrap one leg around each silk. Cross the legs over one another, if necessary. **M 2**
- Without letting go of the silks, slide the hands behind the back and cross the silks. Continue the movement by bringing the silks under the underarms. **M 3**
- Slowly unwrap the legs, bend them, and open them into a split and rock to vertical, with the arms open and slightly forward. **M 4**
- To get out of the position, bring the silks back together, with one leg in the basic climb position. Slowly change the hand position. Bring the upper part of the silks to the front again. **M 5**



M 1



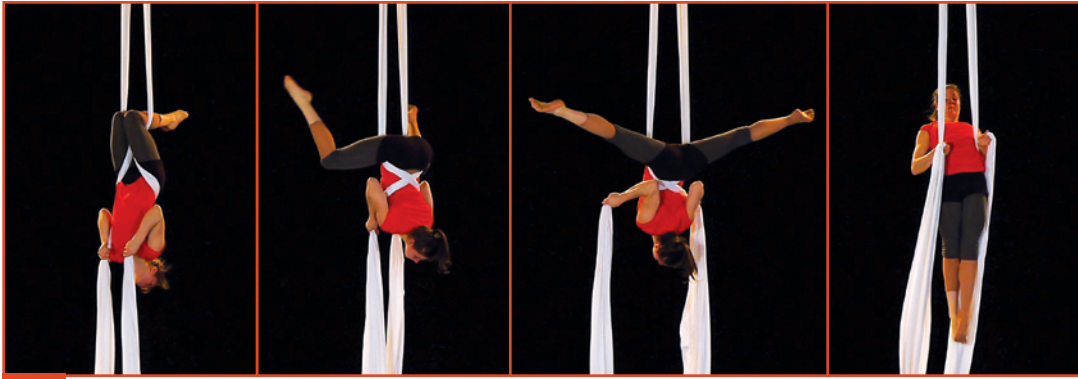
M 2



M 3







M 4



M 5

## Educational

1. Do the position standing on a mat. The feet will return to the mat when rocking to vertical. Bend the legs to experience the hang. This exercise also allows simulating the way to get out of the position.

## Manual Aid

- The instructor lightly supports the participant to prevent him from sliding and losing height while getting into position.

### Common Mistakes

1. The participant brings the legs between the silks while getting into the pike inverted position.
2. The participant does not completely extend the legs when they are wrapped in the silks.

### Corrections and Corrective Exercises

1. Bringing the legs to either side of the silks, on the outside, so that the hands are between the legs.
2. Pressing the heels up and fully extending the legs.



## ROPE AND SILK BACK REST

### Technical Element Description

Static lateral and horizontal position, with the back against the rope.

### Prerequisites

- Pike inverted position.
- Position for frog wrap.

### Explanation of the Movement

- From the pike inverted position, hook the right knee above the hands, let go with the left hand and find the lower end of the rope with the same hand. **M 1**
- Put the rope over the left iliac crest and keep it firmly in place with the left hand. Without letting go with the right hand, slowly release the right knee and bring both legs together straight, with the horizontal upper body. **M 2**



M 1



M 2

### Educational

1. Lying supine on the floor, do the whole position.

### Manual Aid

- The instructor lightly supports the participant by his thighs and shoulder.
- The instructor helps the grip of the lower hand by holding the rope right next to the participant's hand and holding an upward tension.



### Common Mistakes

1. The participant's legs fall and the torso rises up toward vertical.
2. The participant has trouble maintaining a lateral position. The body "rolls" toward the ground and prevents holding the position.
3. The participant feels that the fingers of his lower hand are being crushed.

### Corrections and Corrective Exercises

1. Positioning the rope at the lower back and not at the waist.  
If necessary, doing exercises that help in holding the split position. **EX**
2. Pulling up with the lower hand and down with the upper hand. Also keeping the head turned upward and looking at the ceiling.
3. When positioning, making sure to leave a few centimetres between the hip and the hand. Applying an upward tension before unhooking the knee.

### Variants

1. Lateral rest with legs split. **V 1**
2. Lateral rest with one hand, the upper hand free and in line with the body. **V 2**



V 1



V 2



## ROPE AND SILK FOOT KEY

### Technical Element Description

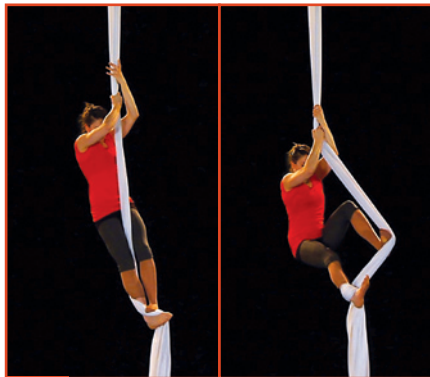
Intertwining the foot and the rope.

### Prerequisite

- Basic climb.

### Explanation of the Movement

- Wrap the rope around one leg as in the basic climb. Use the sole of the free foot to create a space between the knee of the wrapped leg and the rope. **M 1**
- Bring the flexed foot of the wrapped leg into this space. The upper part of the rope must go under the arch of the foot and inside the leg. **M 2**
- When releasing, press the upper part of the rope with the free foot and release the support foot.



M 1



M 2

### Educationals

1. Standing on the mat, supported on one leg, do the sequence with the hands so as to understand the movement.
2. Sitting on the mat, do the sequence without the body weight.

### Manual Aid

- The instructor guides the participant practising on the floor by directing his foot.



### Common Mistakes

1. The participant does not leave enough space between the wrapped leg and the rope. This makes it impossible for him to insert his foot.
2. The participant tries to bring the foot from the outside to the inside and ends up with the upper part of the rope outside the foot and the leg.

### Corrections and Corrective Exercises

1. Helping the free leg to create more space by sliding one hand forward and down so as to push the body away from the rope.
2. Bringing the wrapped foot to the inside directly under the free foot, which will slightly cross the legs.

### Variants

1. Two-foot key: Do a foot lock on just one silk. Flex the locked leg as much as possible and wrap the free leg around the second silk like in the basic climb. Do the lock with the hand by bringing the silk from the outside to the inside of the foot. Bring the hand back to the silk and straighten the legs. **V 1**
2. Three-quarter turn: Do a foot key. Once in position, make a three-quarter turn to the right if supporting on the left foot or to the left if supporting on the right foot. Hook the knee of the free leg as high as possible. With the hand corresponding to the hooked leg, securely grip the foot, so as to keep the knee closed, and let the other hand go while extending the torso. **V 2**



V 1



V 2





## ROPE AND SILK HANGING

### Technical Element Description

Secure hanging of the silk.

### Explanation

- Always anchor the silk onto a steel part, preferably circular, with an inner circumference of a minimum of 9 centimetres and a diameter of 1.5 centimetres. The ring should be forged and not welded. A pear- or oval-shaped part is also acceptable if it conforms to the same criteria; make sure the part has a sufficiently wide base to prevent the silk from moving up.

### Set-up

- Fold the silk lengthwise into two equal parts and nestle the ring in the fold. Wrap the ends of the silk around the ring from the outside and bring them through the centre of the ring, from front to back, under the centre of the silk.

### Common Mistake

1. Using an aluminum alloys part, intended for a use other than anchoring. For example, using an “eight-shaped” descender for mountain climbing, which is a part that is too small and also more fragile than steel since it is made of alloy.

### Correction and Corrective Exercise

1. Obtaining the equipment from a supplier specialized in acrobatic rigging.



## ROPE AND SILK RIGGING STRAPS

### Technical Element Description

Anchoring methods, types of straps and their maintenance.



### Explanation

#### Anchoring methods

- **Basket hitch:** Bring the strap over the chosen bracket one or more times without crossing or knotting it. Hook the carabiner through both ends.
- **Choker hitch:** Bring the strap over the chosen bracket and put one end inside the other end. Pull to tighten around the bracket and hook the carabiner to the free end. Watch out for strap wear at the choker point.

#### Types of straps

- To rig the rope or silk, use specially designed straps tested for acrobatic rigging or industrial straps. In both cases, these straps will have a manufacturer's label indicating their maximum load. Currently, the safety margin used in acrobatic rigging is between "5 to 1" and "10 to 1", that is, each element used to rig a person must be able to support between 5 and 10 times his weight.

For example, a strap designed to support a person weighing 70 kilograms should have a minimum load capacity of 350 kilograms. It is likewise for the point to which the strap is anchored.

#### Maintenance of straps

- Regularly inspect the straps; pay special attention to broken stitches and frayed edges. If there is any doubt, discard the strap. For the anchoring point, avoid sharp edges and right angles. If necessary, cover these surfaces with protective jute or cardboard to protect the straps.





## ROPE AND SILK CARABINERS AND SWIVEL HOOKS

### Technical Element Description

Basic types of carabiners and swivel hooks and their use.

### Explanation

- Carabiners intended for acrobatic rigging are made of steel and equipped with a screw or spring closure. Once attached, position them upside-down and screw toward the bottom.
- The swivel hook is optional, unless the participant wants to turn in the rope or silk. The most commonly used ones are made of alloy, which makes them more fragile; avoid banging them together and/or dropping them.
- Handle any rigging element with care and never use second-hand equipment unless its history is known and it has been thoroughly inspected.

#### Common Mistakes

1. The rigger forgets to turn around or screw a carabiner.
2. The rigger assumes that the apparatus is correctly anchored.

#### Corrections and Corrective Exercises

1. Always checking twice. In case of doubt, checking a third time.
2. Checking the anchoring before each use, even when it is believed that no one has touched the equipment.





## ROPE AND SILK MATERIALS AND MAINTENANCE

### Technical Element Description

Different types of ropes and silk and their maintenance.



### Explanation

#### Rope

- There are three main types of rope: with a smooth sheath; with a braided sheath, called diamond braid; and twisted. “Sheath” means the outer part that covers the core of the rope. Regardless of their usage conditions, watch out for obvious signs of wear, such as stitches that have slipped in the sheath for the rope with a smooth sheath, or the core showing through in the case of braided sheath ropes. Preferably keep them in a clean, dry and cool area.

#### Silk

- Obtain the silk from a specialized supplier or ask the advice of a rigger. Keep the silk in a clean, dry and cool place protected from sunlight. Regularly and thoroughly inspect the entire surface of the silk to find any possible broken stitches. Replace the silk at the first signs of wear. If necessary, wash the silk with a gentle detergent and air-dry them.
- In both cases, avoid wearing jewellery, which can damage the fibres and cause injuries.

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Produced in collaboration with the National Circus School, and translated into multiple languages, *Basic Techniques in Circus Arts* aims to introduce the public to circus arts. As both a technical guide and an educational tool, this document illustrates 177 technical elements drawn from 17 basic circus arts disciplines. Accompanied by video documents, this work offers in-depth expertise and technical content that will enable the delivery of progressive and specialized instruction in a safe environment.

In collaboration with



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