INSTRUCTION MANUAL

AERIAL STRAPS

03



FEDEC

EUROPEAN FEDERATION
OF PROFESSIONAL
CIRCUS SCHOOLS

FEDEC 3
Preface 4
—
01 INTRODUCTION 6
1 Introduction 7
2 Discipline - specific ethics and philosophy 8

02 GENERAL CHARACTERISTICS 9
1 Description of the apparatus 10
2 Types of material and straps' characteristics 12

03 CONTEXT OF THE PRACTICE 14
1 Maintenance of the apparatus 15
2 Safety procedures 16

04 PRE-REQUISITES 18

05 STRAPS' TEACHING METHODOLOGY 20
1 Planning the programme 21
2 Quantitative (sets) and qualitative (rest) planning 22

06 PRACTICE 23

1 Group classification of moves 24

2 Specific physical conditioning 66

3 Complementary workshops 69

07 RESEARCH AND INNOVATION 71

The artistic dimension in the students' creation of a circus act 73

Example from a school member of FEDEC: artistic exploration at CNAC 74

INSTRUCTION MANUAL

AERIAL STRAPS

COORDINATED BY **SVEN DEMEY**,
DANIELA ARENDASOVA, **GÉRARD FASOLI**

CONTRIBUTORS: ELENA FOMINA, JONATHAN FORTIN, ANTOINE GRENIER, PASCAL JACOB, BRUNO KRIEF, MARTINE LEROY, HOWARD RICHARD

WITH THANKS TO THE NATIONAL CIRCUS SCHOOL (MONTREAL) STUDENTS: JOHAN BRYTZ, BENJAMIN COURTENAY, JOREN DAWSON, BRIDIE HOOPER, KERTTU PUSSINEN, JÉRÔME SORDILLON

03

FEDEC
EUROPEAN FEDERATION
OF PROFESSIONAL
CIRCUS SCHOOLS



© FEDEC 2012

FEDEC

Created in 1998, the European Federation of professional Circus Schools (FEDEC) is a European and international network for professional training in circus arts. It is composed of over 50 members of which 2/3 of schools and 1/3 organisations associated with circus arts, located in over twenty countries, in Europe and beyond.

FEDEC's main vocation is to support the development and evolution of pedagogy and creation in the field of circus arts' education, with the following objectives:

- to improve professional training and teaching provided in circus arts
- to develop the skills necessary for a better integration and evolution in the employment sector
- to consolidate the link between circus professionals and schools
- to promote the work of students from these schools

To this end, FEDEC set up different activities:

- to encourage cooperation, exchanges, reflection and mobility of network members and their students, professors and administrators
- to design and coordinate European projects aiming at improving higher education and continuing professional development, namely through research and studies on key competences in the circus arts' teaching, continuing professional development sessions for professors and pedagogical and artistic directors, workshops, focus groups, dissemination of good practices and know-how, and production of pedagogical tools
- to design and coordinate activities that reinforce circus arts students' employability such as presentations in a professional environment, meetings with potential hiring organisations, production and distribution companies, dissemination of work experience or work opportunities, and a collaboration depending on professional and personal projects
- to disseminate news and information about the network and the circus arts' teaching sector through an array of internal and external communications tools which are kept up to date
- to boost the participation of secondary, vocational and higher education institutions as well as circus arts' promotion organisations in the European debate on education, culture and employment

FEDEC is supported by the European Commission (DG Education and Culture - Lifelong Learning Education Programme), the Executive Agency "Education, Audiovisual and Culture "(EACEA), Cirque du Soleil, Productions du Dragon, Cirque Phoenix and the Commission communautaire française de la Région de Bruxelles-Capitale

© FEDEC 2012

PREFACE

FEDEC is the first and only international exchange and cooperation network in circus arts' professional training and it helps defining and implementing a new pedagogical approach to teaching circus arts.

From 2005 to 2007, FEDEC developed the first European network of educational exchanges which resulted in meetings – of often historical significance - with teachers of different nationalities and different schools on the teaching of six circus arts' disciplines or specialty groups. These exchanges, which took place on a weekly basis, laid the foundation for the Basic Circus Arts' Instruction Manual chapters.

This manual is designed to be in constant development; it aims to be a good practice guide for secondary, vocational and higher education schools, and illustrates the essential requirements in terms of injury prevention. Other topics such as rigging and safety, physical preparation and artistic engagement are discussed as teaching subjects in their own right.

The innovative nature of this exchange network was highlighted by the 2009 Golden Prize for creativity and innovation, awarded by the European Commission.

Following this acknowledgement and in order to further improve the few pedagogical tools available for circus arts, FEDEC network members formed a working group composed of experts from various professional schools, for diversity and representativeness purposes. The working group's aim was to reflect on the pedagogical challenges encountered today in circus arts and the necessary tools to face them.

Building on the work carried out in previous years and the issues raised by teachers, new training modules were organized in 2011 (Cyr wheel) and 2012 (aerial straps, i.e. this chapter) in order to keep enriching the Basic Circus Arts' Instruction Manual while developing the pedagogical approach, in order to go beyond the practical peer exchange and highlight the artistic and pedagogical innovations related to the discipline.

In this process, FEDEC considers the acquisition of circus techniques as an artistic subject in its own right which is complementary to some specialisations' technical aspects. The manual focuses on the artistic aspects of learning a discipline such as sensations and the fundamental relationships established in circus arts (with a partner, with space, with the audience...).

FEDEC does not wish to impose any particular aesthetic and only wishes to lead teachers towards a teaching method that integrates an artistic approach. It is then the teacher's responsibility to develop a teaching logic and to guide the progress of his/her students.

Different aspects of the discipline are addressed in their current context. The individual chapters are meant to illustrate the evolution of the teaching approach, the discipline, the equipment and the artistic exploration while examining the discipline's terminology. The chapters also focus on current developments and innovation, workshops and complementary disciplines which enrich teaching.

© FEDEC 2012

Another pedagogical challenge is to develop students' independence and to support teachers in this endeavour.

This chapter was created following a training module for professional aerial straps' teachers, which was held from 19th to 24th March 2012 and hosted by the National Circus School of Montreal. Teachers came from a variety of backgrounds and it was led by experienced teachers, with the participation of students.

The aerial straps' chapter is the result of a pooling of expertise and knowledge from different teachers on the basis of a predefined framework. This common framework is intended as a tool to ensure that different chapters have a homogeneous structure, while taking into account the specific aspects of each subject. The focus group was also involved in the drafting of the Chapter in order to ensure a harmonized editorial approach.

For FEDEC, the joint production, free and widespread distribution of these teaching aids are a way of promoting and implementing the idea that sharing and transmitting values is an integral part of our network.

The pilot modules are a first experiment of what could become a new program of training modules for trainers, as well as the production of educational tools for the initial and continuing education. We pursue our mission of contributing to the development of training of future circus artists and teachers, with the ambition of achieving a better recognition of the circus arts' teaching profession and of our specialties as part of the performing arts' sector in Europe and worldwide.



© FEDEC 2012



01

INTRODUCTION

© FEDEC 2012

1
Introduction

It is difficult to establish exactly when two leather straps started to be used for sport or entertainment purposes because, like in many other acrobatic disciplines, we imagine this originated from an everyday use.

The strap is fabricated with lianas gradually transformed into ropes, useful to access a landing, a higher level or branch, and in a broader sense, to go up or to cross a distance. Straps could also have been inspired by the leather reins used by horsemen to lead their horses in the steppe, especially in China. Some equestrian ornaments are decorated with bells - a way to ward off evil spirits - and in certain areas of China these small objects can be found hanging to straps in order to mark the rhythm in gymnastics. In China, especially in the 17th century under the Qing dinasty (1644-1912), straps' practice as a performing art was characterised by vertical lines and a repertoire of static figures. The discipline was embraced by acrobatic companies from the 1950s at the end of the Long March and was more akin to the rings' technique before gradually moving towards an independent art form with the creation of new moves.

Semantically, there is an interesting connection between "straps" and "estrapade", an ancient torture technique used on ships in the 15th century, which was echoed in the name of a gymnastics' move in the 19th century, i.e. a twist consisting in hanging by one's hands from a rope and putting the body through the two outstretched arms. The etymology is uncertain, between the Italian "strappata" past participle of "strappare" (to snatch) made into a noun, and the Gothic "strappan" or "bind tightly". The English word "strap" reinforces this analogy, which is clearly demonstrated by the last move of an act by strap artist Lewie West: a vivid illustration of the "estrapade".

The Soviets claim pioneering the use of straps in a dynamic form with the creation of an aerial duo straps in 1972 based on the initiative of the acrobatic coach Vladivien Levshin and two gymnasts, the Panteleenko twin brothers. Their physical strength and the fact they were twins helped to turn this act into a reference point in the field.
Nowadays, fabrics are preferred to leather because of their even resistance.

© FEDEC 2012

2
Discipline - specific ethics and philosophy

HELP OR SPOTTING

One of the teacher's tasks is to instil confidence in the students and to reassure them during the learning process and execution of moves. It is important to consider the concepts of progressive learning and responsibility, in order avoid too many doubts arising during the technical training:

- Progressive learning, by using appropriate teaching aids in training and the gradual independence from spotting
- Responsibility, by choosing the right time to tell students that they are ready to carry out the move independently

Spotting is mainly carried out around the pelvis and legs in order to offload the weight on the shoulders.

CONTROLLING EFFORT / ECONOMY OF MOVEMENT

The strength component is essential in this discipline. However, when it comes to controlling effort, it is important to seek a balance between strength, flexibility and balance. You must take the right approach in order to perform strength movements with efficiency and a certain lightness.

Here are some suggestions to achieve this balance:

- Use words like "Power " / "Minimal force" / "No effort"
- Find a "comfortable" sensation
- Look for a balanced position

MORPHOLOGICAL RESTRICTIONS

1 At the beginning of the learning process, the technical basis is considered the same for male and female.
2 If, after a while, lack of strength seems to be a limiting factor, creativity in the choice of different figures or movement leaves the door open to many other kinds of straps' work (contortion / movement...), which highlight the versatility of the discipline in adapting to different physical abilities.

AGE

For physiological reasons, it is advisable to wait for the adolescent phase (age 13 to 15) before working on static movements and more intense strength training. This ensures that the musculoskeletal system is ready to tolerate heavy loads and multiple sets. In the pre-adolescent phase (age 9-12), it is considered wiser to work on dynamic movements. After this age, strength training can be gradually increased.

PHYSICAL PROTECTION

The use of protective accessories or equipment is advised when performing certain moves (armbands to protect the upper arm, neoprene belt to protect the lower back and the integrity of the skin).

© FEDEC 2012



02

GENERAL CHARACTERISTICS

© FEDEC 2012

1 Description of the apparatus

There is no real consensus regarding a standard material and different equipment shapes and sizes are used. Depending on individuals' needs, experience and morphology, there are variations in:

- straps' width, which varies on one's preference roughly between 3cm and 5cm (with proportional breakage points)
- straps' length, depending on the height of the rig, between 3m and 6m
- straps' material (cotton, synthetic or a mix), depending on the need for more or less elasticity
- the size of the straps' loop, or lack of one, depending on the need to wrap one's body, hands, feet and legs inside the loop. The size of the loop can be altered with keepers



DIFFERENT TYPES OF STRAPS AND HOOKS

Straps with stitched loops
Straps with adjustable loops on "Delta" maillons
Round hook
Automatic hook

Straps' rigging is carried out with a:

- a triangle (flies or hoops)
- two quick links or carabiner
- two swivels
- two Delta maillons
- a fixed point



TRIANGULAR HOOK

Straps can be hooked onto two parallel points, but we prefer the single hooking point as it allows a richer expression of movement.
The two straps are hooked into a metallic piece that separates them slightly and lets them twist on themselves thanks to a swivel.
There are different types of triangles (flies or hoops) with a higher central hook or two lower hooks. In order to have a good stability during training, the height of the triangle must be higher than its base.

Triangles must comply with the maximum Working Load Limit – WWL (or SWL - Safe Working Load) regulations or be tested.

© FEDEC 2012



SWIVELS

Swivels allow the straps to twist on themselves and to unwind as roll-ups are being performed. They must be good quality (according to regulations and maximum Safe Working Load), well maintained and protected from damage or dismantlement.
The top central swivel gives the performer the ability to spin.

FIXED POINT

Straps can be hooked directly onto a fixed point. An adjustable hook which alters the training and performance height is more frequently used.
A pulley system hooked to the ground is the most comfortable one. Metallic cabling or a pre-stretched rigid rope must be used.
It can be adjusted by using a pulley block or an automatic brake (with a security lock on the rigging).
The hook must not thereby create unwanted counter forces during a dynamic piece.

Straps acts can be performed as a:
- solo piece
- duo
- trio
- and ensemble (group)

This manual will focus on skills required for solo pieces. Once these core skills have been acquired, the individual will be better prepared to apply them in creative ways.

© FEDEC 2012

2

Types of material and straps' characteristics

STRAPS USED AT ÉCOLE NATIONALE DE CIRQUE DE CHÂTELLERAULT (ENCC), FRANCE

- Straps made of synthetic materials covered in cotton
- Breakage point: 1780 kg
- Maximum Working Load Limit – WWL (or SWL - Safe Working Load): 127 kg
- Loops: 18 cm
- Length: 4 m
- Width: 4 cm



STRAPS USED AT THE NATIONAL CIRCUS SCHOOL (NCS) IN MONTREAL, CANADA

NCS uses nylon and Kevlar straps.

The advantage of nylon straps is that they are more durable with a certain degree of elasticity, which is more comfortable for students doing drops.

Kevlar, on the other hand, is very rigid. Some artists need a more efficient energy transfer in order to perform more dynamic tricks so they will opt for this material as it will not "rob" them of the impulsive energy that they have generated, as the nylon one would. However, Kevlar is much more expensive (more than 3 times the price of nylon) and more difficult to get hold of.

Straps are designed with a safety ratio of 10 to 1, with working loads of roughly 250 kg. Straps' breaking point depend on the quality of fabrication since materials often are resistant to excess of 2500kg. They are subjected to specific material strain tests.

STRAPS USED AT THE NATIONAL INSTITUTE OF CIRCUS ARTS (NICA), AUSTRALIA

NICA works on the principle that the straps ought to be adapted to the technical and artistic demands of each artist.

NICA uses 50mm multi coloured tubular cotton straps.

Two double straps mounted on swivels are hung to a single point.



© FEDEC 2012

STRAPS USED AT THE CENTRE NATIONAL DES ARTS DU CIRQUE (CNAC), FRANCE

CNAC uses different types of straps. Each type has to be used for a specific practice and use (which is explained and decided with the student).

For a multipurpose use of "mixed" straps, a synthetic chain and a 5cm cotton thread are used with a breaking point of 1200kg. The advantage of the cotton feel is that it does not burn the skin.

For work in hanging position on one strap (or work with 2 people), 100% synthetic straps are also used.

CNAC prefers using straps that are 5 cm wide (4 cm ones are more comfortable on the hands but 20% less resistant) (once they graduate, students' choice is freer).

100% cotton straps are only to be used for bare arms training for multiple repetitions and exercises on the spot (or roll-ups with arms) without much dynamic movement. Wear and tear and humidity is the negative aspect of this material so it is essential to check it well before use.

New materials require adjustments of the body and of exercises: Kevlar straps have a much more compressive quality than cotton straps, which are less traumatising for joints (elbows and wrists).

CNAC has devised a secure automatic triangular hook which eliminates the need for intermediary links (a safer and more compact assembly).



←
secure automatic triangular hook which eliminates the need for intermediary links

© FEDEC 2012



03

CONTEXT OF THE PRACTICE

© FEDEC 2012

1
Maintenance of the apparatus

Before each training session:

- **Ensure that the links attached to the triangle are closed properly**
- **Check straps for deterioration or tears in the material**
- **Check the attachment points (fastenings and shock absorbers)**
- **Roll up the straps properly after use and keep them in an appropriate bag**
- **If the straps contain cotton, it is important to keep them in a dry place as humidity is a risk factor**
- **Kevlar and nylon straps are easy to maintain but Kevlar quickly creases. Kevlar is also much more sensitive than nylon to the deterioration caused by ultraviolet rays (an important factor to consider for outdoor use)**

© FEDEC 2012

2
Safety procedures

MAKING GRIPS SAFE

To work at height (motor, pulley block etc.) you must ensure that hand grips are safe.
For work with straps without stitched loops, you must make a secure lock on at least one of the two hands.



For work with stitched loops you use stitched and adjustable textile rings that you can tighten around your wrists. You can also create a slip knot by passing the strap through the loop (very secure but less comfortable). The size of the loops must be adapted to the nature of the work: work with the feet, thighs or the entire body.

In your artistic endeavour, you must take into account that different choices of secure grips will take different lengths of time to execute.
-Ensure that, if the straps have been designed for a specific individual, they must not be used by other people at the same time
-Drops from height (starting from the top of a roll up with the straps wrapped around the wrists or from a handstand) can cause shoulder injury. With that in mind, the material must not be too rigid, because you have to take into account the "drop factor" whereby the performers' shoulders will become shock absorbers. The shock can be absorbed by the length of straps, the height of the drop, the performers' manual control or the use of a specific shock absorber. A specific physical conditioning and progressive learning model are essential.

There are different types of rubber-based shock absorbers. The principal is an elastic coil secured by a fixed hook whose role is to limit the degree of stretching and to provide safety in case of breakage. The shock absorber chosen must be adjusted according to the performers' weight.





OTHER SAFETY MEASURES

- For all exercises without spotting with a risk of falling to the floor (switching between planches or roll downs for example), a crash mat is used. The proximity to the ground can cause sprains (ankles and knees) in case of a hard landing
- A visual safety check is done at every session (fastening of the hooks, etc.)
- A more detailed check is carried out each time the straps are taken down and on a weekly basis
- It goes without saying that all material used must comply with safety regulations and must indicate the Working Load Limit – WWL (or SWL - Safe Working Load), otherwise it must be tested
- Ensuring the integrity of the material throughout the "hooking chain"

© FEDEC 2012



The equipment is only as strong as its weakest link.
The quality of the stitching, both on the top (where it is attached) and in the loop (hand grip), is essential and must be checked and tested if the manufacturer does not provide tensile strength figures.

Adjustable metallic loops at the hooks' level are commonly used so that you can be sure about the resistance and not have a difference in length.

The integrity of the "hooking chain" takes into account the textile straps, the Delta maillons and swivels, cables and pulley system.

The weakest swivel must have a minimum breaking point of a 1:10 working load ratio, so for an artist weighing 60kg a minimum breaking point of 600kg. This must be applied on each strap if the artist hangs from one strap.

The higher resistance of synthetic materials makes them popular even if they are less comfortable than the cotton ones.

There are synthetic straps (polyamide or Kevlar) lined with cotton, or mixed ones with a synthetic chain and cotton weave that comply with safety regulations and are also more comfortable.



← Example of a torn cotton strap after a drop from height

© FEDEC 2012



04

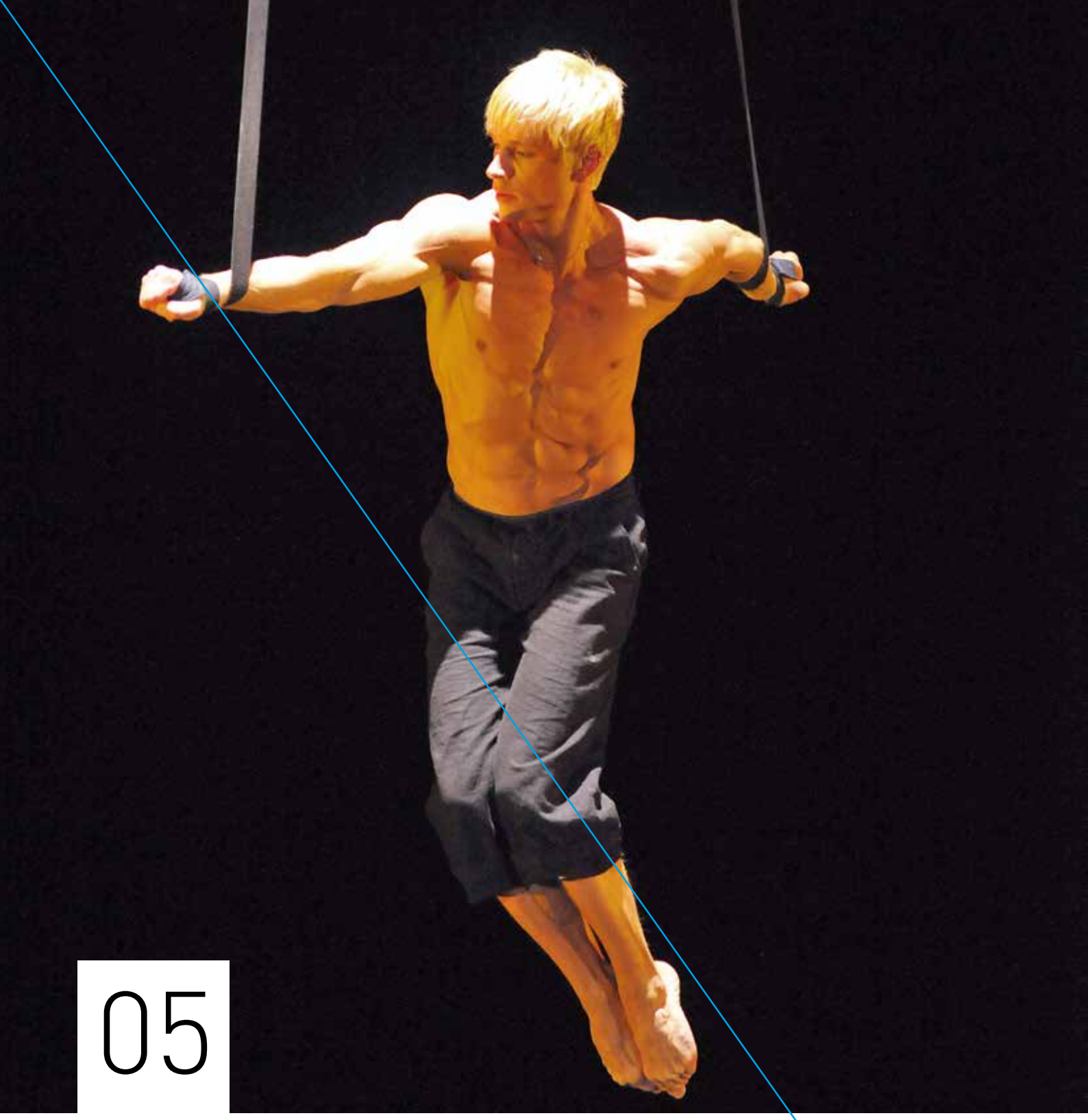
PRE-REQUISITES

© FEDEC 2012

Here is a list of pre-requisites that students must possess in order to learn aerial straps:

- **To be in good physical shape**
- **To have adequate strength and flexibility in both the shoulders and trunk. A good test would be to check whether they can do 15 pull-ups**
- **To have good abdominal strength and flexibility of the thoracic region**
- **To have one year of experience in physical training in aerial/handstand (basic level)**
- **Some experience in gymnastics/acrobatics, rings in particular, naturally makes it easier to practice the more advanced techniques**
- **Some experience in movement or dance will also be helpful**
- **A good body weight : strength ratio**
- **Tolerate and bear a certain degree of pain associated with straps' training**
- **No history of significant shoulder and wrist problems**

© FEDEC 2012



05

STRAPS' TEACHING METHODOLOGY

© FEDEC 2012

1
Planning the programme

In order to plan a training programme in the medium to long term, it is advisable to take into account the following general recommendations:

- Go through all the correct stages to perform a move
  The discipline has some very specific foundations.
- Follow the logic of mastering basic technical elements before tackling intermediate and advanced ones (see difficulty level accompanying the illustrations below)
- Master moves before linking them together
- Depending on the year planning, start rehearsing sequences of moves to work on endurance well in advance. Endurance will allow you to feel freer during the performance
- Be aware of how important spotting is (in the right place and at the right time!) in order to avoid injuries
- Ensure that the work load is well distributed and diversify exercises
  Most techniques are rehearsed on both sides to avoid overloading one arm and to train the body in a symmetrical way. Alternating movements using different muscle groups or other skills (hanging/in support position/dangling/one arm/two arms) is advisable in order to avoid excessive fatigue and/or injuries.
- Gradually increase the workload
  Beginners need more practice with two arms and work progressively towards more one-arm work. Moves are first learnt statically, then swinging and dangling.

© FEDEC 2012

2
Quantitative planning (sets) and qualitative planning (rest)

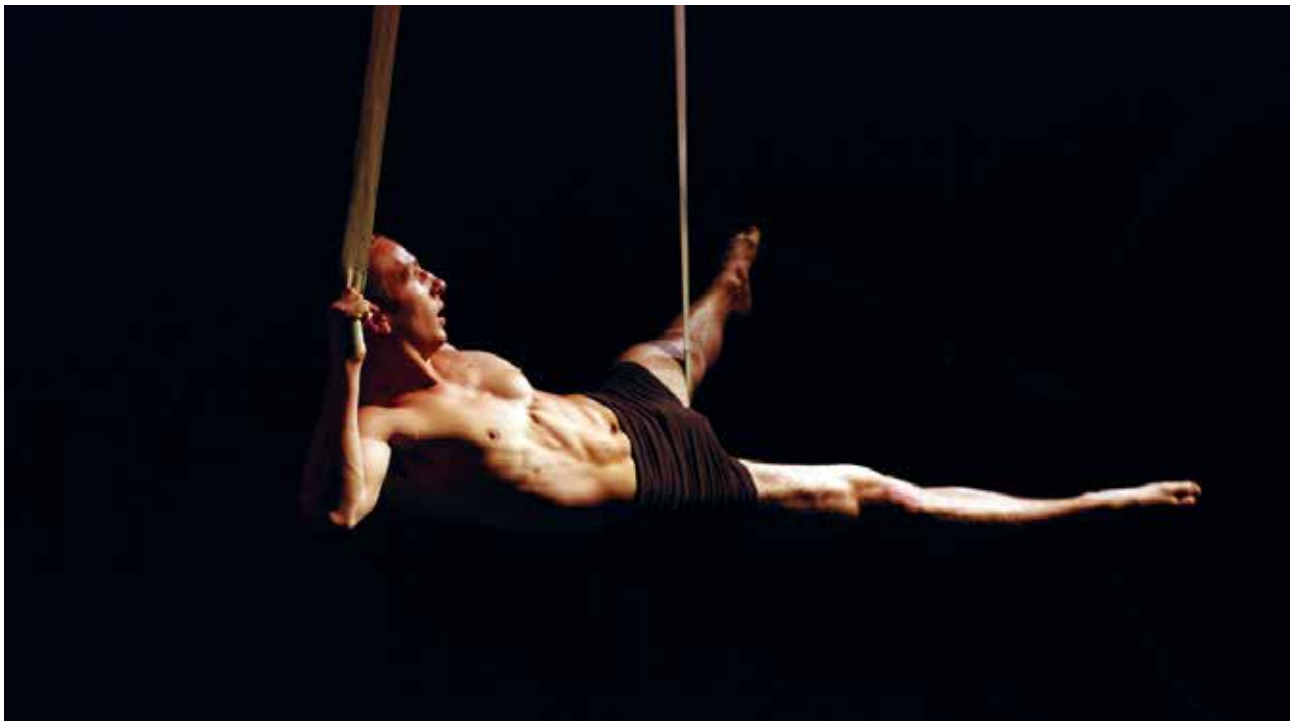
The content, proportions and order of different parts in a session will vary depending upon the time of the year and whether objectives are reached or not.

It is important to find time for play and exploration to break the routine. Exploration should only be done with movements already acquired or without risk.

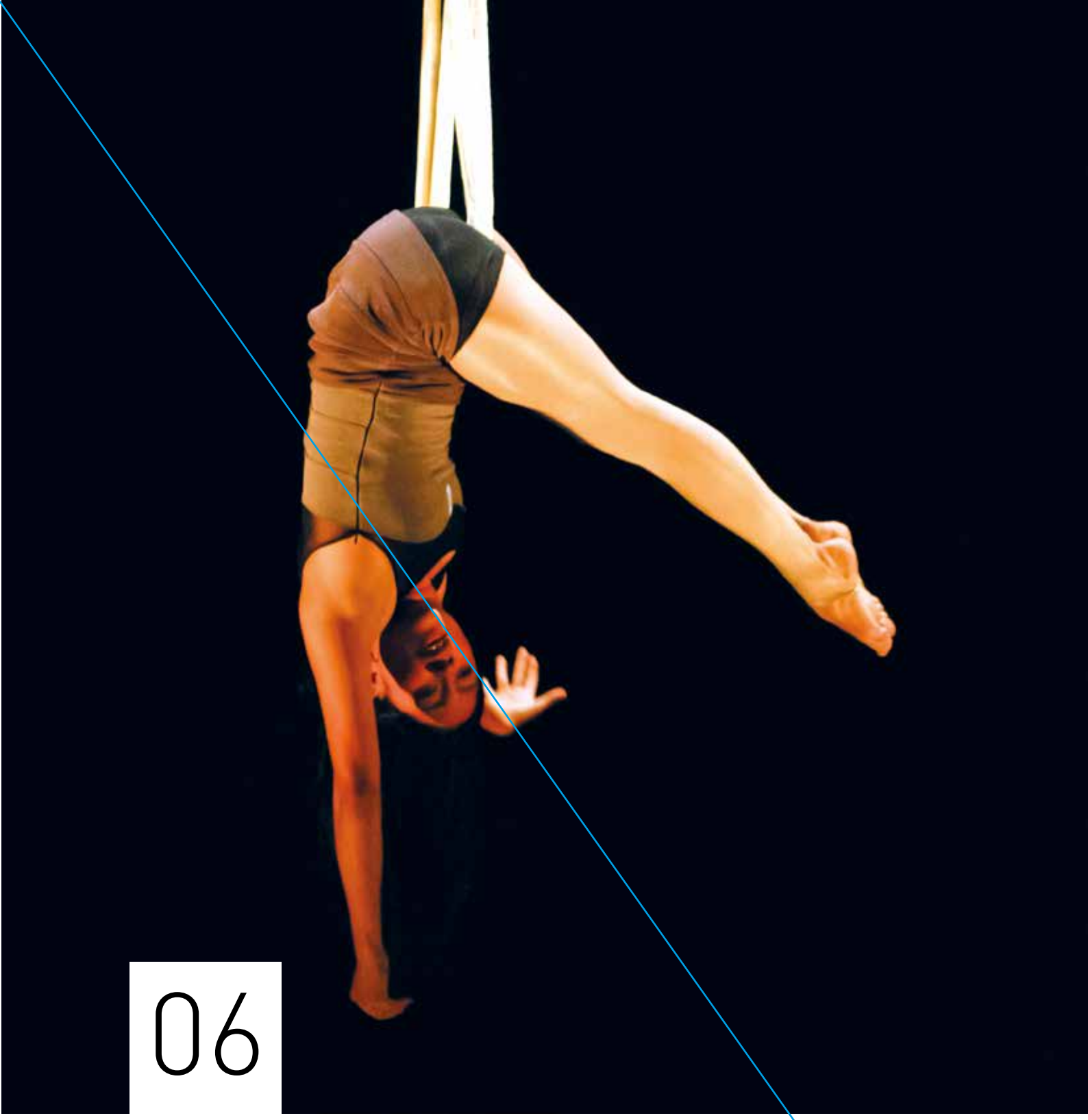
Ideally a typical beginners training session will last one hour:
- A 10 to 15 minutes specific warm up. If possible to be done before the lesson starts
- Four to five blocks of basic exercises (progressive stages and moves without spotting), each block lasting roughly 10 minutes
- Specific physical preparation: 10 minutes
- Specific stretching: 5 minutes

Ideally, a typical session for an advanced student will last 2 hours.
- Specific warm up from 10 to 15 minutes
- Practicing preliminary moves
- Technical practice depending on individual programme
- Explorative work
- Specific physical preparation: 10 minutes
- Specific stretching: 5 minutes

The rest time in between sets generally corresponds to how long the pulse needs in order to return to "pre-warm up" levels (+/-120 pulsations/minutes). This generally amounts to 60 - 80 seconds and is proportional to the difficulty of the exercise and the student's conditioning level. This rest time can be used to do some stretching, preparing for the next exercise or doing some relaxation exercises.



© FEDEC 2012



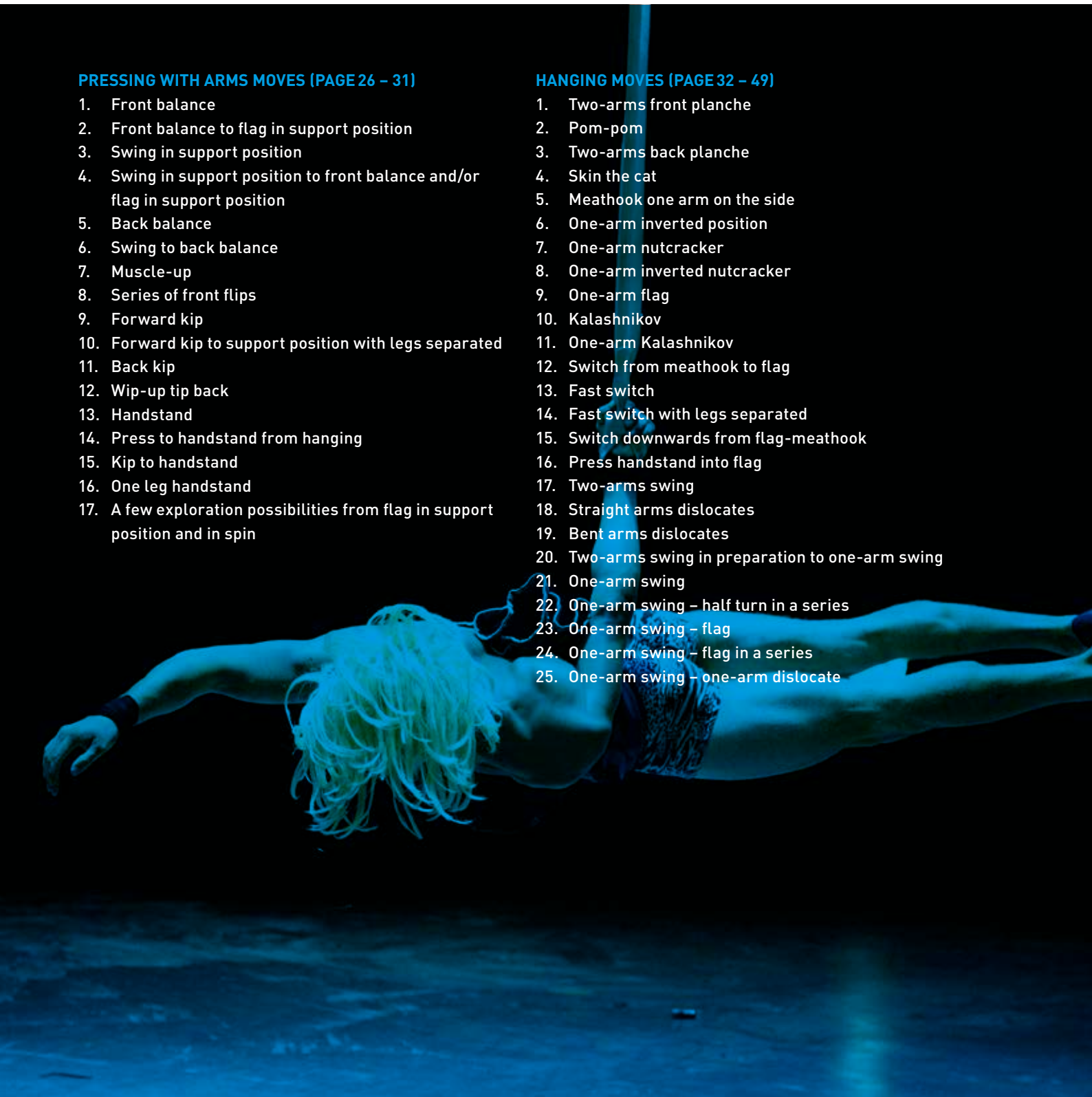
06

PRACTICE

© FEDEC 2012

1

Group classification of moves



PRESSING WITH ARMS MOVES (PAGE 26 – 31)

1. Front balance
2. Front balance to flag in support position
3. Swing in support position
4. Swing in support position to front balance and/or flag in support position
5. Back balance
6. Swing to back balance
7. Muscle-up
8. Series of front flips
9. Forward kip
10. Forward kip to support position with legs separated
11. Back kip
12. Wip-up tip back
13. Handstand
14. Press to handstand from hanging
15. Kip to handstand
16. One leg handstand
17. A few exploration possibilities from flag in support position and in spin

HANGING MOVES (PAGE 32 – 49)

1. Two-arms front planche
2. Pom-pom
3. Two-arms back planche
4. Skin the cat
5. Meathook one arm on the side
6. One-arm inverted position
7. One-arm nutcracker
8. One-arm inverted nutcracker
9. One-arm flag
10. Kalashnikov
11. One-arm Kalashnikov
12. Switch from meathook to flag
13. Fast switch
14. Fast switch with legs separated
15. Switch downwards from flag-meathook
16. Press handstand into flag
17. Two-arms swing
18. Straight arms dislocates
19. Bent arms dislocates
20. Two-arms swing in preparation to one-arm swing
21. One-arm swing
22. One-arm swing – half turn in a series
23. One-arm swing – flag
24. One-arm swing – flag in a series
25. One-arm swing – one-arm dislocate

ROLLING MOVES (PAGE 50 – 58)

1. Roll-up meathook/tucked
2. Roll-down meathook/tucked
3. Roll-down straight
4. Roll-up straight
5. Roll-up with one arm - one leg
6. Roll-up elbows
7. Variation using straps with big loops
8. Roll-up hips

DROPS (PAGE 59 – 62)

1. Roll-up elbows – drop feet
2. Roll-up elbows – free drop
3. Wip-up-Tip back
4. Wip-up-Tip back to meathook one leg
5. Wip-up-tip forward
6. Handstand - drop
7. Handstand – drop double wrist wrap (or more)

FLOOR WORK (PAGE 63 – 64)

1. Back flic - flag
2. Kicking the moon landing in flag
3. Large swing (starting from feet on the floor)

MOVE WITH LEGS' SUPPORT (PAGE 65)

1. Split balance, descent and ascent



Each move features a difficulty level; we chose BASIC, INTERMEDIATE and ADVANCED.

This classification is based on criteria such as:

- The order in the progression towards the "final" move
- Static vs dynamic move
  "Dynamic" means that most moves can be performed in a large swing, in spin or in a circle. In this case, the difficulty level goes up from «intermediate» to «advanced».

PRESSING WITH ARMS MOVES

Grip





Grip in support position (straps with a loop): locked

1

Front balance BASIC

The front balance is executed with a locked grip, with shoulders slightly set back, bent arms and hands with palms up, rested on the pelvis.
To start with, learn the position with feet on the ground and if the support from closed fists is stable enough, raise your heels off the floor and find the balance point in a horizontal position.

Sensation :
Find the horizontal balance point with an open back and steady support below the centre of gravity.



2

Front balance to flag in support position BASIC

To perform a flag in support position, transfer the weight to one arm, turn your pelvis and point your foot backward with a straight leg, while at the same time stretching the support arm and lining up your free arm next to your head. To come back out or change side, first of all bring the free arm back below the pelvis before you transfer the weight to the other side.

Sensation :
Laying down in an arched shape with the lower back in the straps, pelvis and shoulders in an open position.





© FEDEC 2012

3

Swing in support position BASIC

Swing with body tension and straight locked arms.
A locked grip provides a more comfortable support.
This is a preparatory exercise for support positions (front/back) and drops (forward/backward).

Sensation :
Lead the movement with a stretched out pelvis and elbows.





4

Swing in support position to front balance and/or flag in support position BASIC

PRACTICE
Swing in support position with straight arms.
In the backward part of the swing, clench your hands to achieve a front position and perform the same actions as described above.

5

Back balance BASIC

Supported back balance is achieved with a straight body, shoulders slightly open, bent arms with the back of the hand pressing into the buttocks, looking down at the feet. Horizontal balance is found by adjusting the space between the legs.
Initially, practice this position with straps close to the ground and with assistance.



6

Swing to back balance BASIC

PRACTICE
Swing in support position with straight arms.
In the forward swing, clench your hands to get into a back position and perform the same actions as described above.

Sensation :
Find a horizontal line with a well-aligned body and feel a steady hand support below your centre of gravity.

© FEDEC 2012

7

Muscle-up BASIC

PRACTICE

Begin the movement with flexed (slightly bent) wrists in support position.
Hoist yourself up until your hands are in front of your chest, turn your wrists and do a push-up.
Keep your body straight whilst moving upwards.
Keep hands close to your body.

Sensation :

Firstly, feel your body hanging freely in suspension with a strong grip position, feel the turned out position of the wrists and the sensation of your body hanging to the floor. This allows your entire body to be suspended in a vertical axis.
The upward phase should feel like a vertical transition on that axis, whilst maintaining your gaze on the horizon.
Being aware of the weight of your feet will help you maintain the right posture.
The pull up, together with the inward rotation of the arms, provides a platform at the wrists' level which, in turn, will allow the next transition movement to arms' extension, together with an outward rotation.






8

Sequence of front flips BASIC

Starting from a muscle-up, tuck up and do forward flips, keeping elbows tight and constantly turning wrists forward and inward.








© FEDEC 2012

9

Forward kip BASIC

From an inverted suspension position, finish in support position.
Point your legs to the ceiling.
Keep your hands close to your body.



11

Back kip BASIC

From an inverted suspension position, finish in support position.
Point your legs towards the ceiling (more or less 45°).
Keep your hands close to the body.
During the tempo, bend your arms and then re-straighten them back to support position.



10

Forward kip towards support with legs separated BASIC

From an inverted suspension position, finish in support position with legs separated.
Point your legs to the ceiling with legs separated.
Place one hand below the buttock.
Keep your other hand close to your body.

This exercise is the preparation for one-leg roll-ups.





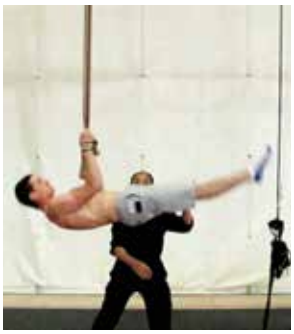
© FEDEC 2012

12

Wip-up tip back BASIC

From an inverted position, perform a backward wip-up with a straight body and bent arms.
When you are doing a wip-up and you reach the "weightless point", perform a tip-back towards a straight support position keeping arms close to the body.
Before going up into a support, bring the arms back in front of the chest (see *muscle-up*).

Sensation :
Wait for the right time to return back to the start position from the "weightless point".




13

Handstand BASIC

A locked grip makes the support easier.
To start with, in order to hold balance, put one leg in front and the other behind the straps.
Keep the arms extended and locked out.



14

Press to handstand BASIC

Raise your pelvis above your shoulders whilst keeping your shoulders open.
Option to go up with legs together or separated.
Later on, try and balance with the use of your legs on the straps.
Do not engage your shoulders immediately; keep them slightly closed in order to engage them at the right moment.






© FEDEC 2012

15

Kip to handstand ADVANCED

From a hanging position, raise your legs to find yourself in a slightly closed inverted position, pull to bent arm (like a pull-up) and continue the movement upward inverting yourself completely, push your arms towards the floor and using your momentum open into a handstand position. This move is similar to a backward roll into a handstand on the floor.
Keep your head straight (look backward).

Sensation :
Look for a vertical line in the movement direction. Follow the straps with your feet.





16

One-leg handstand BASIC

Perform a press to handstand, grip both straps with one foot, while the other leg remains free and horizontal. Open your shoulders to push hands forward. Keep your eyes on your hands.



17

Some variation possibilities starting from a flag in support position in rotation INTERMEDIATE

to one-arm handstand (legs straight or tucked)





to meathook position (legs together or separated)





to handstand with legs separated





© FEDEC 2012

HANGING MOVES

Grips

We call the grip in hanging position, with an unwrapped wrist, using straps with loops a “free grip”.





The free grip is to be used only if loops are not used. Gripping the strap without a secure wrap is not safe so, for safety reasons, it is forbidden to carry out drops or swings. This grip is only to be used during manoeuvers or simple moves.





A secure grip in hanging position with straps without loops.





















© FEDEC 2012

1

Two-arms forward planche BASIC

Your body goes downward lined up into a horizontal position. Different leg positions are possible depending on difficulty level: one bent leg, legs separated, aligned and fully extended.



PRACTICE

01 With spotting
02 With belt and lunge
03 With elastic band on the straps
04 Specific physical preparation
(**a** → **d** with help / **e** → **h** without help)


02


03


04 a


04 b


04 c


04 d


04 e


04 f


04 g


04 h

2

Pom-pom BASIC







© FEDEC 2012

3

Two-arms back planche BASIC

Your body goes downward lined up into a horizontal position. Keep the angle between the trunk and the arms quite shallow. Keep your head straight and look slightly forward. Different leg positions are possible depending on difficulty level: one bent leg, legs separated, aligned and fully extended.



PRACTICE

With spotting, with belt and lunge, with elastic band on straps, specific physical preparation (for example, skin the cat).





4

Skin the cat BASIC











Sensation :

Accompany the lowering of your feet and the rotation and opening of the shoulders with a continuous rotation of your wrists. Feel the shoulder rotation to the end point. Focus on turning continuously.





© FEDEC 2012

5

Meathook, one arm on the side BASIC

Raise your closed legs then continue to raise your pelvis and put your feet towards the side. The hanging arm (on the leg side) needs to be held tightly to the body and the stretched out free arm is next to your ear (constantly lined up with the length of your body, with a raised pelvis). Emphasise the closed shape.
To return, lower your pelvis and raise your feet towards the straps before lowering your legs.



Sensation :
The suspended arm is an extension of the straps, the hips cover and conceal the arm.
The weight of the free arm and legs accentuate the body hook effect.

PRACTICE

01 Hanging from 2 arms, get in position and release one hand
02 Hanging from one arm with the support of the free hand
03 Hanging from one arm only


01 a


01 b


01 c


02


03 a


03 b


03 c

IMPORTANT : strengthening of the held position with a high and low pelvis in view of a progression towards the shift to flag.





Varying leg positions possible: together, separated, one leg.





© FEDEC 2012

6

One-arm inverted position BASIC







From the meathook position, stretch out the pelvis with the arm pointing to the floor and feet to the ceiling. Keep the suspended hand close to your pelvis. Keep your head straight and look at your feet.
This position is the introductory move before the fast switches (see page 42).

PRACTICE

01 Get into the position using two arms starting from meathook position.

Sensation :

The upper body doesn't move in relation to the suspended arm. Just feel the legs dropping down and lifting and keeping in line with the trunk.

02 Lift and lower your pelvis using two arms into position whilst being spotted.

Sensation :

The pelvis carries out a closing and opening action whilst the legs remain close to the arm. Feel the sensation of being upside down.

03 Go up from the meathook position to an aligned position with one leg and one arm.

Sensation :

The arm stretched out as an extension of the straps. The top leg aligned with the trunk and the free arm. Point the free arm toward the floor as much as possible. Feel your body close to the suspended arm.

04 Starting from the one-arm meathook position, go up to the lined up position with one arm and two legs with a spot and then progress to doing it without help.


01 a


01 b


01 c


02 a


02 b


02 c


03

© FEDEC 2012

7

One-arm nutcracker BASIC

PRACTICE

01 From a hanging position, rise to the nutcracker position with two arms.

02 Get into the position with one arm with the support of the free hand on the hand of the teacher.

Sensation :

Legs separated and turned out, the outer leg resembling the hooked shape of the meathook.
The back stretched out upwards pushes the hips into the direction of the wrist.
The weight of the feet gives you the sensation that the hips are swallowing your arm.

03 Transition from the two-arms meathook position to the nutcracker and return (basic)

04 Transition from the one-arm meathook position to a nutcracker and return (basic)

Sensation :

The pelvis goes up and down keeping a closed position. Legs stay close to your arm. In the transition from legs together to legs separated, stretch out your shoulders slightly and keep visual contact with your body.

05 Go up from a one-arm hanging position to the nutcracker (basic)

8

One-arm inverted nutcracker INTERMEDIATE

PRACTICE

01 From the inverted position with two arms, separate your legs to lower them with an open back shape, with a fixed arm between your legs.

02 From the meathook, hook one foot, put the other one between your legs and the hooked leg finishing in an open back shape. The free arm points to the floor.

Sensation :

The free arm points to the floor and your gaze goes with it, allowing the body to expand vertically directing the hips upwards.
The stretched out legs cover the suspended arm.
Feel the opposition between the hips going upward and the feet going downward.





















© FEDEC 2012

9

One-arm flag BASIC






01 a


01 b


01 c


02 a


02 b


02 c


02 d

Inverted hanging position tilted to one side with one arm tightly tucked in to the back, close to the pelvis.
Place the free arm as an extension of your trunk.
Your body is slightly extended (pelvis, back and shoulders slightly open).
Keep your head straight and slightly tilted backward.

PRACTICE

01 From the inverted two-arms position, lower your body in front of the straps into the position and go back up.
02 From the inverted two-arms meathook, open your body and go back down into a flag position, then back into meathook and inverted position.
03 From the inverted two-arms position, descend towards the flag position and let go of one hand. Place the other arm in line with the trunk, by your head.

You should always perform these exercises with spotting then progressively do them on your own.

Sensation :

A continuous arm rotation creates a twist initiated by the wrist, which then goes to the elbow, shoulder and your entire body.
Your horizontal and stretched out body, which is a result of stretching out your free arm and both legs, hooks onto the suspended arms, with a continuous external rotation of your upper body.
Your gaze is directed to the hand of the free, stretched out arm.

Spotting: for hips and legs. Be careful when you come out of a position and control your shoulder movement (dislocation).

© FEDEC 2012

10

Kalachnikov INTERMEDIATE

Continue the two-arms flag into a handstand by pushing down with the hand of your stretched arm and pulling with the bent arm behind your back.







11

One-arm Kalashnikov ADVANCED

Let go of the hand of the arm stretched out in front.







12

Switch from meathook to flag (slow switch) BASIC








PRACTICE

On the floor :

Imitate the movement lying on the floor (both ways)
For your shoulders' safety and in order to avoid injuries, it is important to train the reflex of turning your wrist in the right direction (supination) when exiting the flag.

01 Meathook to flag


01 a

01 b

01 c

01 d

02 Flag to meathook


02 a

02 b

02 c

02 d

© FEDEC 2012

In the straps :

01 Consolidate the back position with one arm to return from the meathook position to flag with spotting

02 Transition from meathook to flag with two arms

03 Inverted two-hands meathook position –flag-planche-flag-meathook

04 Transition from meathook to flag and return with one arm.

IMPORTANT: Start returning from flag to meathook by rotating your wrist, in order to guide the shoulder rotation in a safe way.


01


02 a


02 b


02 c


02 d


03 a


03 b


03 c


03 d


03 e

© FEDEC 2012

13

Fast switch (transition of the extended hips) INTERMEDIATE

PRACTICE

Consolidate the inverted position, lined up in the middle (when doing a half cat twist) by:

01 Going from a meathook position to a stretched-out position. Firstly with two arms, then with one (see move 6 "consolidation of inverted one-arm position" p.36)

02 Lower and lift your pelvis in the inverted position. First of all with two arms, then with one arm (see move 6 "Consolidation of inverted one-arm position" p.36)

03 From the meathook position, do a tempo (high-low-high) with your legs, stretch into a vertical position and finish in a flag. Stretch again into a vertical position with legs together and perform a half cat twist to finish in meat-hook position.

Spotting: Spot the higher leg that remain close to the straps (in a more or less vertical position).

Sensation :

Feel the stretch in the vertical position, with your legs pointing upwards, say close to the straps along your body at the time of the half cat twist to a flag, actively turning the wrist that leads the rest of the body in the twist and at that time look at the floor. Your gaze will return to your body in the transition from half cat twist to meathook position.









© FEDEC 2012

14

Fast switch with legs separated

INTERMEDIATE

Use the same techniques described above. Start the meathook movement with separated legs (the inner leg is lined up with the trunk), put your legs together when performing the half cat twist and then separate them again in the flag position.








15

Switch downwards from flag-meathook (in rotation)

INTERMEDIATE

From a flag position (in rotation) go down (via a one-arm planche and with legs separated) towards a hang to then go back up into a meathook position.







© FEDEC 2012

16

Press handstand into flag INTERMEDIATE

01 Consolidate the first part of the movement to then get into a flag position. From the one-arm hanging meat-hook position, swing your pelvis upwards turning your shoulders and wrists inward.
Lifting your legs is easier when separated.

02 Press handstand with the help of your free hand.
In the second part of the movement, when rotating your shoulder, put your legs together.

03 Only with a teacher guiding the pelvis and legs movement.

04 Hanging on your own.

Sensation :

In the closed position, look for a contact between the elbow and the hip then keep up the internal rotation of the arm-shoulder by opening up your body at the same time.


01 a


01 b


01 c


02 a


02 b


02 c


03 a


03 b


03 c


04 a


04 b


04 c

© FEDEC 2012

17

Two-arms swing (gymnastics – ring swing) BASIC

01 The swing position is slightly arched with open back and shoulders, arms slightly apart and looking forward.

02 Keep this stretched out position to get into a vertical position,

03 then close your body in a dish position with feet going up. The arms are slightly separated and pushing backward and you are looking down at your feet. Return downward from swing position in the same dish position into a vertical line then go back to starting position leading with your heels.







18

Straight arms dislocates BASIC







© FEDEC 2012

19

Bent arms dislocates INTERMEDIATE

From the inverted hanging meathook position, begin the same way as if to do a straight arm dislocation. During the descent of the pelvis, bend your arms and clench your hands. Pass the vertical point with a straight body. Continue towards the inverted position at the same time straightening your arms. Start the same movement again.

Evolution: Dislocation with bent arms toward flag (advanced).

When raising your legs forward after you have passed the vertical position, release one strap (which was gripped with one basic wrist wrap) and twist to flag.













© FEDEC 2012

20

Two-arms swing in preparation to one-arm swing BASIC

"Natural" descent (open shoulders, backs and hips), in the vertical position stretch your body downward, close your shoulders (extension) starting from the vertical point.






21

One-arm swing BASIC



Grip with one basic wrist wrap. One strap stabilises the wrist without a hand grip (loop is secured by using a keeper) whilst the other locks the wrist with a hand grip.

Sensation:

The energy and the attention given to straightening the free arm creates an extension of the body. This extension extends through the body in the direction of the legs and propels them towards the top of the strap. The arm and the gaze are directed toward the floor bringing the whole body into a vertical position that allows feet to reach the highest point of the swing. Feel the suspended hand next to the thigh at the end of the backward swing. Feel the suspended hand between your thighs at the end of the forward swing.










© FEDEC 2012

22

One-arm swing – half turn in a series INTERMEDIATE

Sensation :

At the top of the swing, an extended body position creates a greater distance between the free hand and the feet; a half turn initiated by the feet at the furthest point from the floor causes a change of axis of the entire body and retraces the circle drawn by the feet during the upward swing phase.

23

One-arm swing - flag in a series INTERMEDIATE

In the forward swing when in vertical position, close the hips and continue the movement towards flag as described in "press handstand to flag" (see move 16 p.44). After the hips and feet go up again, look for extension with feet pointing upwards and go down the same way as in "one-arm swing - backward" (see move 21 p.47).

24

One-arm swing – flag ADVANCED

Same as above but without backward swing.
After your feet and pelvis have gone up again into flag, start a forward swing again (so do a half-turn, see move 22 "one-arm swing – half turn, in a series") and finish in flag.

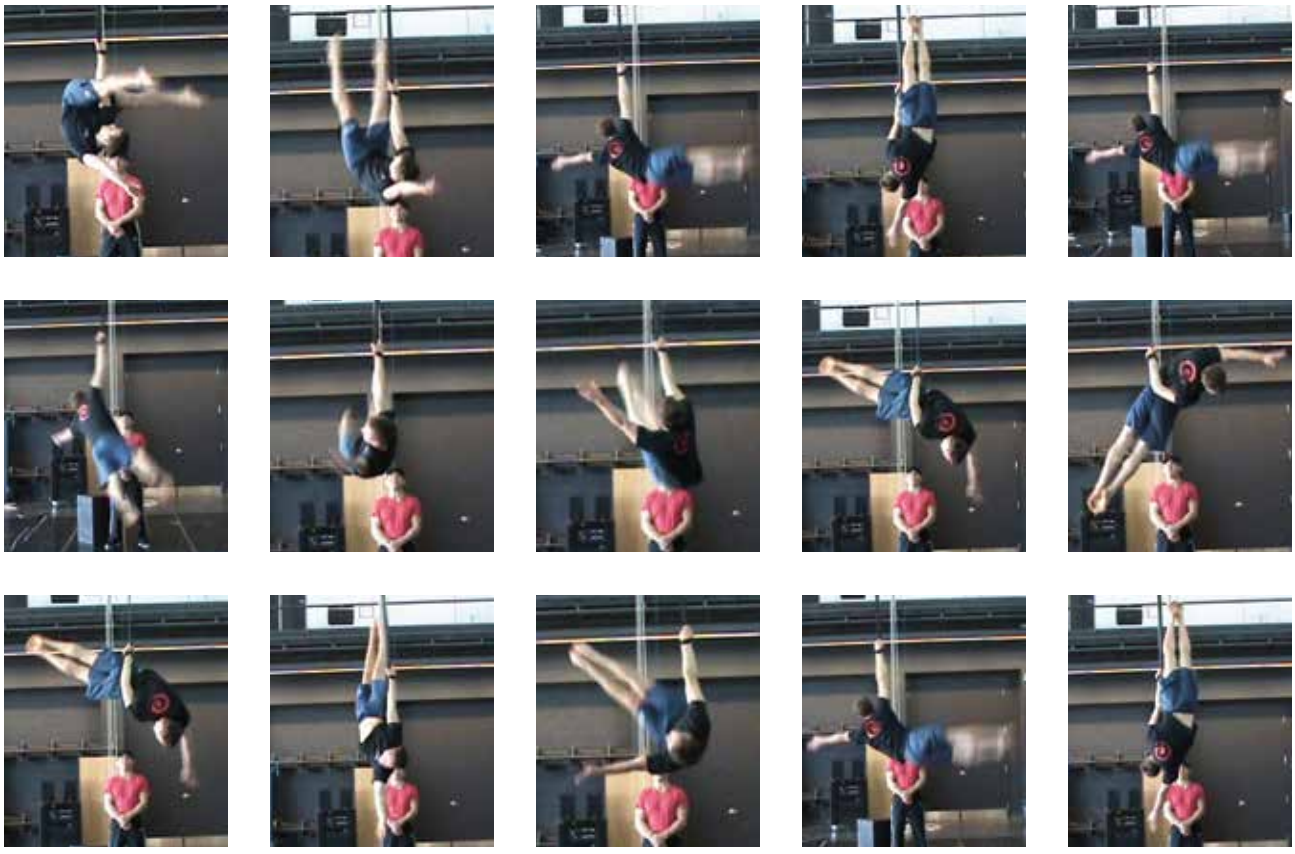
25

One-arm swing – one-arm dislocate ADVANCED

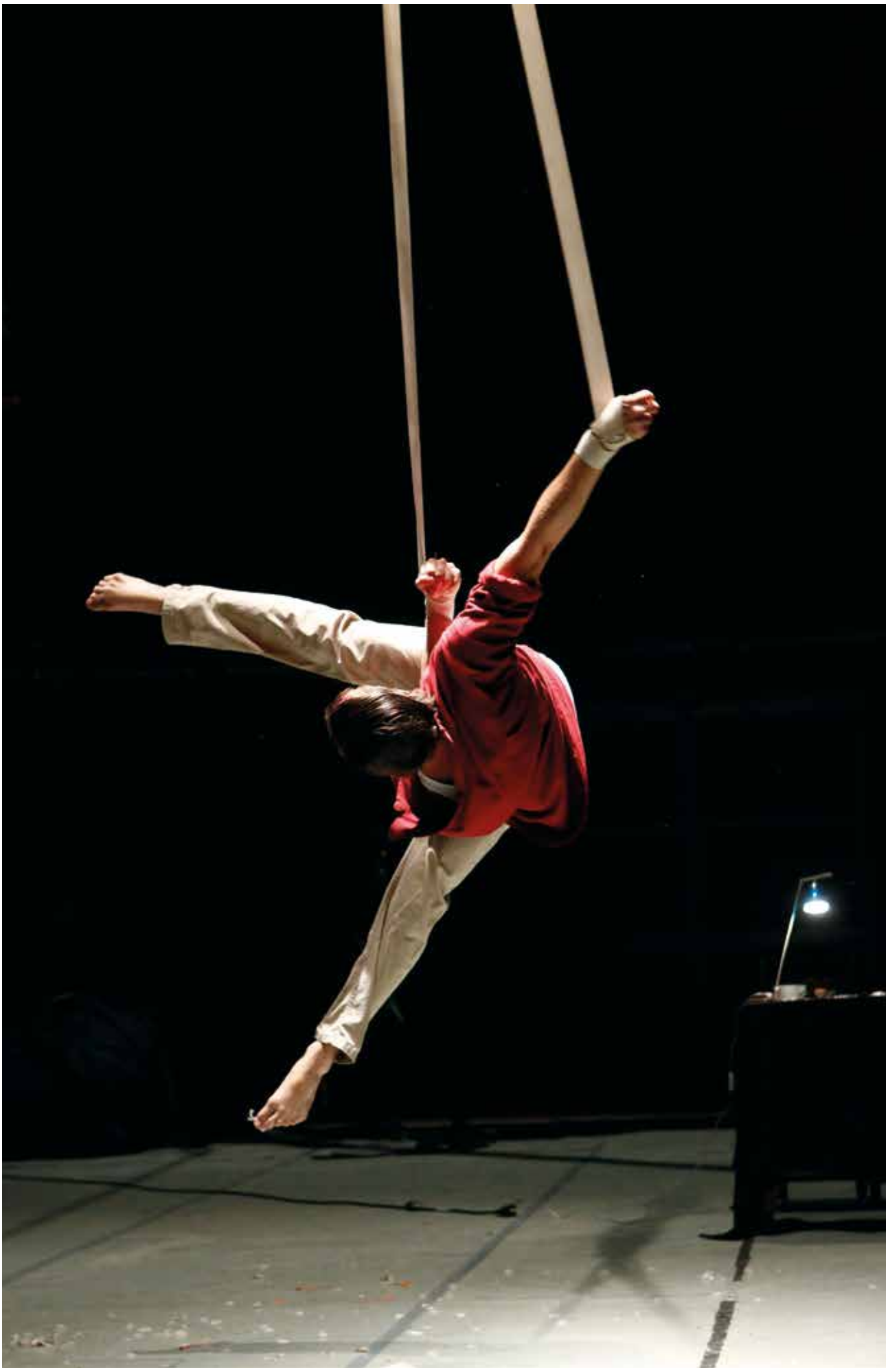
Sensation:

At the peak of momentum generated, with your body stretched out to keep the distance between the free hand and the feet as wide as possible, turn your hanging arm and shoulder outward so that your body can go to the other side of the strap without changing its axis and direction. Whilst keeping the momentum, your feet draw a circle around the hanging shoulder.

ONE-ARM SWING – FLAG



© FEDEC 2012



ROLLING MOVES

1

Roll-up meathook / tucked BASIC

01 Depart with bent arms
02 Muscle-up depart – forward front flip - Roll-up starting from bent arms
03 Depart with straight arms

Lift your pelvis as you do in the depart of a press handstand to place the straps above your elbows. In the back position, arms are slightly apart, whilst in the 'raise your back' position arms are closed. Perform a roll-up whilst remaining piked and turn your wrists as well as your shoulders. Finish the movements upward in a crucifix position, inverted crucifix or handstand.


02 a


02 b


02 c


02 d


01 a


01 b


02 e


02 f


01 c


01 d


02 g

© FEDEC 2012


03 a


03 b


03 c


03 d


03 e


03 f


04 a


05 a


05 b


05 c


05 d


05 e

PRACTICE

04 With spotting, initially.
Start whilst standing on the floor with elbows already wrapped (the first roll-up is performed just on top of the elbows).

Coaching tip

05 Practice on small fixed straps (no hand grip)

Sensation :

By maintaining gaze at your waist you create a rounded shape at the height of the abdomen.
The arms and power generated in a horizontal extension position create a platform on a perpendicular axis to the straps. The inward rotation initiated by the wrists progressively imparts the arms and body to roll.
The contact with the straps and the arms right below the elbows provides a rotational force and enforces your entire body to roll forward.

© FEDEC 2012

2

Roll-down meathook/tucked BASIC

After the crucifix or inverted crucifix, do the same movement but the other way around.
The last roll-down is performed by bending your arms in order to maintain the support position and to avoid the shock of straps sliding on your wrists. Finish in an inverted position.

3

Roll-down straight BASIC

Same as the tucked roll-down; when shifting to the inverted position, elongate your body and descend with a rigid pelvis. When going into a vertical position, tilt your pelvis in slightly and then open it out again.

Sensation :
By keeping the body stretched out you create the maximal distance possible between your feet and the top of your head allowing a tensed body position.
The descent is initiated by the weight of the head in the neutral position that carries the body over like a lever, whose axis is the arms/straps line, directly underneath the elbows allowing a vertical movement between the straps.
A continuous external rotation of the wrists that precedes the movement of the body will provide a platform that can both receive the body, control the rhythm of descent and give the impression of rolling down and not dropping.

4

Roll-up straight INTERMEDIATE

Sensation :
Lead the ascent (first part of the roll-up) with your heels, pelvis and control of your upper back. Lead your descent (second part of the roll-up) with your heels that describe a big circle and with a straight body. Fix your gaze at your waist.

ROLL-DOWN STRAIGHT









ROLL-UP STRAIGHT




© FEDEC 2012

5

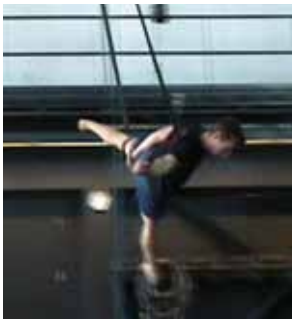
Roll-up with one-arm – one-leg BASIC

After having performed the "forward kip toward support position with legs separated" (see move 10 p.29), roll-up the stretched-out arm and leg into a Superman position by leaning on the rolled up arm and leg.










© FEDEC 2012

PRACTICE

01 Roll-up starting from a standing position:
Place one foot on the floor, the other in the loop, wrap around the shin twice, wrap around the elbow of the opposite arm twice. Ensure you push well on the arm and leg. Take care when wrapping the arms that you maintain a tight body as one unit.

02 Roll down


01 a


01 b


01 c


01 d


01 e


01 f


01 g


02 a


02 b


02 c


02 d

© FEDEC 2012

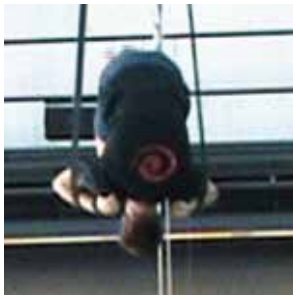
6

Roll-up elbows INTERMEDIATE

Same as a "bent arms roll-up" (see move 1 p.50) but with a grip with one single wrist wrap and continue with bent arms.

Sensation :
Feel the lift of the pelvis together with the wrist rotation.




7

Variations using straps with big loops BASIC

01 Roll-up
02 Roll down


01 a

01 b

01 c

01 d

01 e

02 a

02 b

02 c

02 d

© FEDEC 2012

8

Roll-up hips INTERMEDIATE









PRACTICE

Depart position:
Jump, first pulling your arms then pushing them into a horizontal (flat) position with the hand holding the straps (grip with one basic wrist wrap) below the pelvis. The choice between right and left when going up should be done instinctively. Keep the cat twist direction in mind.

Three main actions:

01 Legs and hips' rotation, legs separated

02 Arms' push
The free arm, which is placed quite high on the straps, pushes in the opposite direction to the rotation, until the hand touches the active hand below the pelvis. By doing so, you will end up in a flag position with straps well-positioned on the hips. When in the flag position, the free hand looks for a higher position on the straps to push back.
The arm of the active hand remains locked into the pelvis. When in horizontal positions, the arm assists the rotation through a subtle push forward next to the pelvis.

03 Turn your shoulders at the same time as you rotate your body. Track this movement with your eyes looking upward.

Top end position :
- Lying on your back
- Hooked position
- Foetal position




Roll-down

From the horizontal position, first let go of the free hand and place it on your back waiting for the straps to arrive inside after a complete turn. This is how you slow down the descent.

When moving horizontally it is also possible to slow down with the active hand by slightly stretching the arm and keeping the hand in front of the pelvis.

Finish in the "tucked foetal" position in order to learn how to slow the movement towards a safe position at the level of the shoulders.
Another option is to continue into a "one-arm swing position" (see move 21 p.47).

© FEDEC 2012







Coaching tip

01 Only carry out the legs movement to perform a half roll-up and then return.






02 Feel the shoulders, hips and feet rotation with the support of your feet inside the straps.







Sensation :

- Keep your body in a horizontal position via the flag position
- Gently anticipate with your gaze in the desired direction
- Feel the constant support of your pelvis that actively seeks out the straps

There are two possible ways of performing this movement:

- A “static” rotation (the body turns as a unit, feel the rotation of the pelvis and hips carrying the body over in the movement)
- or start with the leg rotation and follow with the rest of your body (cat twist/the shoulders follow the rotation afterwards)

To roll down, maintain the pressure with the active hand

© FEDEC 2012

03 Feel the shoulders, hips and feet rotation with the support of your feet inside the straps.












04 Variation with one leg in two straps (straps with big loops).








Help:

- With spotting of the pelvis on the side of the free hand/hip
- For the descent, use a crash mat in order to avoid injuring your feet

Evolution:

- Roll-up hips with legs together ADVANCED
- Roll-up hips in large swing, in a circle or in spin ADVANCED
- Roll-up hips after going up into a flag ADVANCED

© FEDEC 2012

DROPS

1

Roll-up elbows – drop feet INTERMEDIATE

After the roll-up elbows with bent arms (see move 6 p.55) and starting from the inverted position, stretch the arms in line with your body. The drop is controlled by the friction of feet against straps. Ensure you keep your arms tight and look slightly forward. Finish in an inverted position.







2

Roll-up elbows – free ADVANCED

Same but without the feet control against the straps.



© FEDEC 2012

Progression to the handstand drop

Evolution

3
Wip-up-tip back BASIC

From the support position (see move 12 p.30 “wip-up-tip back”), fall backwards with your body in a dish position in the direction of a small forward planche (roughly 30°). Keep your arms tight.
Feel your body swinging backwards diagonally.

4
Wip-up-tip back to meathook one leg BASIC

Handstand - descend into the support position - tip back towards piked-fast switch INTERMEDIATE
Handstand- descend into the support position - tip back-piked (legs separated) - one-arm flag INTERMEDIATE











© FEDEC 2012

5

Wip-up-tip forward BASIC

From the support position, fall forward with your body in a dish position towards a small backward planche (roughly 30°). Keep your arms tight and look slightly forward. Finish in an inverted position.

Sensation :

Feel your body aligned swinging forward in a diagonal direction with your gaze directed towards the floor.







6

Handstand drop INTERMEDIATE

From the handstand position, bring your arms in very quickly, in line with your body and finish in a "small planche" position. Direct/slow down the drop with the foot that is hooked.

It is imperative to use the locked grip, secured using the keepers.

Sensation:

Align your body well and keep looking slightly forward. Follow a diagonal trajectory during the drop.








© FEDEC 2012

7

Handstand drop double wrist wrap (or more) ADVANCED

Start in handstand with a double wrist wrap (that you do before going up into a handstand) which unravel during the fall.





© FEDEC 2012

FLOOR WORK

1

Back flic - flag INTERMEDIATE





2

Kicking the moon landing in flag INTERMEDIATE






© FEDEC 2012

3

Large swing (starting from feet on the floor) BASIC

01 Forward





02 Backward






03 Forward







04 Backward







Attention !
When opening backward, be careful not to crush your heels. Leave a small margin to perform a slight pull up before putting your feet on the ground.

© FEDEC 2012

MOVE WITH LEGS' SUPPORT

1

Split balance, descent and ascent BASIC






© FEDEC 2012

2

Specific physical conditioning

The practice of straps is an activity that requires a wide range of muscular and cardiovascular qualities when practiced at a high level. The initial physical condition of the student as well as the length of the act, quantity and technical difficulty of the techniques chosen will determine the aims of the specific physical preparation.

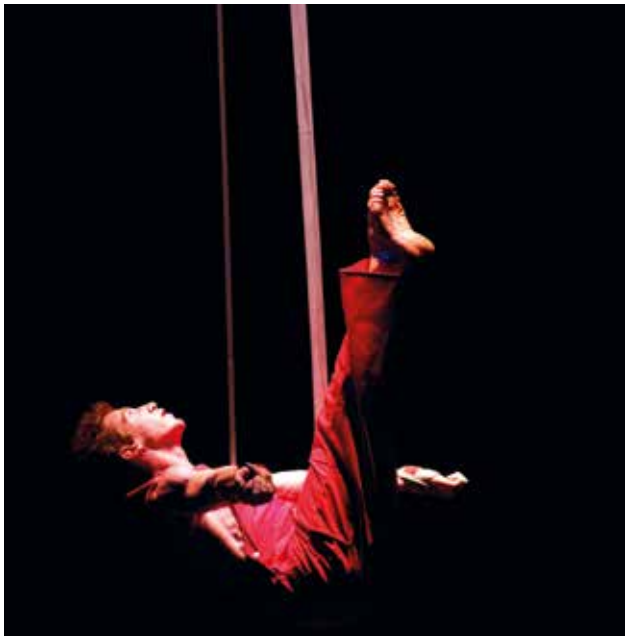
The planning of specific physical conditioning for straps has the following four considerations:

- Identifying energy systems used
- Identifying the main muscular actions used
- Identifying the antagonistic muscles to the main muscular actions
- Identifying potential injuries

Identifying energy systems used

A straps act generally lasts between 4 to 8 minutes, often without any pauses in movement and with frequent variations in work intensity. As a result, the aerobic system is required for the duration of the act whilst the anaerobic and lactic systems are required through the variations in repetition and intensity of muscle contractions throughout the act. These qualities should be trained to assist in carrying out a straps act.

During the training process, you can improve your endurance by gradually and progressively repeating more and more often the sequences of movements of the act as you approach the actual performance.



© FEDEC 2012

Identifying main muscular actions

The movements most frequently encountered on straps are:

- Open body tension positions (e.g. the flag opening from the side), "dish" (e.g. swings) and perfectly straight lines (e.g. planches). Massive abdominal strength is required in almost every movement.
- The pulling and the pushing of the arms
- The dynamic and static strength of the shoulders (adduction/abduction/flexion/extension/internal and external rotation and combinations of these movements)
- The dynamic force of the rotators from the forearm (wrists)

Training in *the weights room* should include these movements as the base of the physical preparation. In addition, the different choices of physically demanding technical tricks done by students will dictate more specific exercises for each one.

It is advised to devote the first part of technical training to intermediate stages which progressively help reinforcing a complex technique.

The optimal time to train dynamic strength development is directly after the general warm up. The reason for this is that a fatigued nervous system does not provide optimal conditions for training dynamic strength.
Regarding static strength training, it can be carried out at any stage of training even if the nervous system is already fatigued.

Identifying the antagonistic muscles to the main movements

To ensure the integrity of your joints a healthy muscle balance must be maintained and the antagonistic muscles to the main movements must also be trained. For example, if one or more trunk flexion exercises (abdominal exercises, body tensioning exercises) are part of a training programme, one or more trunk extension exercises (dorsal lifts, exercises in cradle) should also be included. Finally, stretching of areas which have been more heavily used at the end of a session will allow students to minimise the risk of injury in the long term.
It is important to perform active stretching (using muscles to stretch the arm to the end of its range). There is no point in achieving great flexibility if the muscles are not strong enough to support a wide range of movements.

© FEDEC 2012

Identifying potential injuries

The highest occurrence of injuries/pain that occur in straps is in the shoulder girdle. An emphasis should therefore be put on the development of endurance and strength of muscles that attach to the shoulder – agonists and stabilisers as they are movement synergists.
The muscles that must be trained for stability are serratus anterior, rhomboids, posterior deltoid, middle and lower fibres of trapezius and rotator cuff.
The pectoral muscles (pectoralis major) and the dorsal muscles (latissimus dorsi) are used in the majority of movements. These two muscles are attached to the front of the shoulder which can contribute to a rounded shoulders posture. During physical preparation you must spend sufficient time opening up your posture.

Simple and challenging exercises for external and internal rotation should be included in the training programme.

Students' recurring pain or discomfort when executing certain moves, teachers' observations about compensatory movements and an initial physiotherapy assessment will dictate which injury prevention exercises to be added on.

Special attention should be placed on *working both sides* of the body. It is important to practice one arm moves in a symmetrical and bilateral way in order to avoid creating asymmetries in the body and overloading one shoulder.

Exercises with an elastic band during the warm up constitutes an injury prevention/muscle stabilisation activity as well as a general warm up. There is a wide variety of exercises.

Here are a few examples:

INTERNAL AND EXTERNAL ROTATION WITH ELBOW OUT TO SIDE





INTERNAL AND EXTERNAL ROTATION WITH ELBOW TUCKED IN TO SIDE





Other aspects that are essential during the warm up:
- Loosening off joints and muscles, in particular neck and shoulders
- Concentrating on lengthening rather than tightening
- Stretching abdominal muscles and hip joints
- Working on back and thoracic flexibility (side bending)
- Forearms, biceps and triceps warm-up – lengthening and shortening
- Personalised warm up based on specific needs and weaknesses

© FEDEC 2012

3
Complementary workshops

Dance and movement as complementary workshop

A movement workshop could be useful for the circus students' technical and artistic development, alongside straps' and circus training.

A complementary movement workshop can be based on a single approach (for example, technical release, floor work, contact or improvisation) or on a combination of different approaches. This will increase the students' body awareness, help them develop and use their senses and feelings, before, during and after performing a movement. They would start by practicing anchoring themselves to the floor with different aids (a vertical support with hand and feet, a horizontal one with different parts of the body; back, pelvis, head, arms etc.).

They could search for their centre of gravity as a result of forces exerted on the body, exploring the point where forces annihilate each other and the body's pivot point.

They can release their bodies and use gravity in order to let go of muscular tensions and work with the appropriate energy considering the required effort.

By adding a sense of direction, the body finds its spatial dimensions: it draws and creates volumes, it generates spatial tensions which are interesting when building and developing dance material to be included in a piece with apparatus. Breathing exercises should also be included in order to understand the notions of suspension, impulse, attack, bounce, lightness and heaviness.

The actions of touching, rolling and sliding of different parts of the body (hands and feet but also pelvis, head, back, arms, etc.) will help students to widen their repertoire and to keep being aware of their sensations.
Knowing how to place themselves in their performing space, knowing endless spatial orientations and different heights (high, middle and low) and being familiar with their own sphere of movement is very important.

Improvisation is a technique that can help students develop their autonomy, their artistic intelligence and creativity in movement, as well as delve deeper into their research on body and movement in space and time. This could have positive repercussions on their personal work revolving around the discipline.

During this type of research, it is important to be receptive to the body's rhythms, to a phrase or sequence and to sound or silence.

Trying to customise and personalise, to get closer to feelings and to work in the "here" and "now" in order to make a movement that is real and to make its intentions as clear as possible.

© FEDEC 2012

Handstands as a complementary discipline

This discipline strengthens back muscles as well as shoulders and wrists. By practicing handstands on the ground, the student can then transfer the skill acquired to straps. It is important to approach the straps' discipline gradually in order to learn it better and reduce injury risks.

Contortion as a complementary discipline

Contortion is a major asset for candidates demonstrating a natural back and legs flexibility. Contortion helps to develop the back muscles and body flexibility necessary in order to perform specific movements with straps or on the floor. Contortion moves, in a hang or in support position, can provide a different approach when using straps. They help improving legs' active flexibility, clear lines when performing tricks and sequences of moves. It will boost students' potential by emphasising their natural flexibility.

Rope/silks as a complementary discipline

Vertical disciplines help to strengthen wrists as well improve arms and abdominals' muscular tone. They provide us with different approaches to performing roll-ups and roll-downs on vertical equipment as well as different "drops" and "glissades". They help with coordination and understanding our body in a vertical upside down position: an essential aspect in straps. It is best to start practicing "drops" and "glissades" on rope and silks because the material is less painful to use and there can be more sets' repetition.

© FEDEC 2012



07

RESEARCH AND INNOVATION

© FEDEC 2012



Circus artists express their relationship with the world in a physical way. They experience sensations not just as a source of pleasure but as an artistic risk-taking and as a means of communication with others.

When we are young, sensations and movement allow us to discover and experience the world. Afterwards, we develop our imagination and thinking but our bodies store these traces in their memories and continue experiencing things.

At every step of our journey, physical sensations are referenced: taste and smells, sounds and colours, temperature and texture, as well as shape, surfaces, volumes, weight, distances, vertical lines, horizontal lines, heaviness, gravity, balance, vertigo, spirals, speed, directions, propulsions, pendular and cyclical movements.
Our sensory and kinesthetic repertoire is constantly reactivated and widened and it becomes increasingly complex.

By putting their bodies at stake and by sharing a wealth of feelings, circus artists take risks in the present and in the artistic act. It is especially thanks to their creativity that we can gain an insight into an unusual physical sphere and make it meaningful to us.

Research and innovation are the natural extension of their work: new movements, new approaches, new practitioners, new apparatus and new disciplines that allow artists to go beyond the genre boundaries and expand them.

Martine Leroy

© FEDEC 2012

The artistic dimension in the students' creation of a circus act

Creating a circus piece requires work, discipline and chaos at the same time. It is an activity that can often be (and sometimes has to be) anarchic, confused and messy. Beginner circus students learn this pretty quickly. At the beginning of their studies, they bring their own mark, their personal traits and their luggage of previous experiences and cultural conditioning; our role is to draw from this pool of creativity. Some students seem to have created a tough shell around them, as if their creativity had been dried up. It is by plunging themselves in creativity and practicing that they will learn – case by case, step by step – how to create different short pieces, depending on the subject and equipment. They have to play with this material over and over again until they get rid of their shell and find their language as well as the approach that will be unique to them.

In all this artistic process, improvisation is a powerful tool that allows to put creativity in practice, to draw on the subconscious and to forget about different censorships. When improvisation is approached with a playful spirit, flexibility, a laid back attitude and permissiveness, the ice is broken and students flourish in an environment where they eventually feel confident and at ease. Playing implies the possibility of making several choices without any constraints. The amusement aspect is essential as it gives a "healthy shock" and kicks off the implementation of ideas that only existed in embryonic form.

Learning also means understanding. It means having new experiences and exploring in a spontaneous way, but it also means analysing, thinking and constantly revaluating the process.
Learning seems however to be a primitive thing, from the physical point of view. Students that reveal their ideas, do so by translating them into a movement. It is by moving that they try and express what they feel inside. First of all, it is an internal impulse, a vague need they feel to create something but then a theme develops over time and by putting in a huge amount of work. Movement comes from many areas – the body, the senses, the mind, the heart and "guts" – and this is what young circus artists try and develop by creating choreographic phrases; it is not just series of technical moves. Movements must have a double objective: to let the act come to life but also to make their inner motivations visible. When students have been adequately trained to draw upon their wealth of experience in order to nourish the creative process, they finally reach the end of this process and produce a piece which is short but that clearly reveals the budding circus artist.

To conclude, let's go back to the chaotic aspect of creation and let's remember that several choreographers have expressed themselves that way. Paul Taylor has admitted not knowing where his ideas came from and confessed trying to work quickly and getting a move on, without questioning himself too much.
As for Alwin Nikolais, he recommends coming up with a simple idea and letting it bring about its effect without making any special conscious effort, while Twyla Tharp suggests repeatedly plunging in ("Dive in, stand back and dive in again").

Howard Richard

© FEDEC 2012

Example from a school member of FEDEC: artistic exploration at CNAC

When planning an act, CNAC's methodology is to give "carte blanche" to students, letting them carry out independent work and to attend writing and composition workshops (or AEC, ateliers d'écriture et composition).

The student or the teacher suggests a theme which is implemented under the guidance of a creator (choreographer, director or musician). This is done (officially) in a non-hierarchical collaboration with a specialised teacher or artist.

This work is carried out over 5 days on the basis of a proposal related to a theme or a work method, such as the repetition of phrases (loop) with a time gap in between. This type of work has been compared to the composing of contemporary music.

This work is linked to technique by the use of the apparatus. The technical level of the proposals will correspond as much as possible to the highest technical level of the students, without putting them in any danger.

Students draw upon previous experiences and prepare different pieces (2 AECs per trimester), under the teacher's supervision. This is in order to discourage students from repeating attempts which are too similar and to encourage them to look deeper into different options so that they are not short of ideas. There is a risk for students to become distracted by engaging in too many experiments, and to lose focus.

A type of creative gymnastics starts developing throughout the workshops and the "Cartes Blanches", which leads to richer and more artistically varied proposals. It has been observed that this creative effect has a contagious effect on the more inhibited students (i.e. reactivity).

The teacher's active supervision is necessary as he or she plays the role of an intermediary between the "creator" and the student so that improvisations and research remain controlled and do not become dangerous for students and their colleagues.

Even if an apparatus can be perceived as an extra constraint, or as "anti-creative", it does not matter. On the contrary, its integration into the artistic research proposals must be facilitated and integrated.

Straps involve both the aerial dimension (flying freedom) and the ground (grips, wraps etc.).

A qualified teacher that encourages students' creativity is important in the daily routine. However, students will take different types of artistic risk with a third party whose presence will often be brief; exchanges and mutual interaction often bring about artistic results.

The question of meaning, approached without any judgement

Abstraction or narration - the student is the person to set the rules of the game. The notion of pleasure in exploration is important, as it allows pushing boundaries and overcoming any obstacles, as well as compensating for the often painful physical training.

© FEDEC 2012

Presenting an act

When presenting an act, it is essential to show the act to the public and not to invite people to a rehearsal. Students must work on increasing their awareness and adopting a specific "physical frame of mind" for the public.

Notions and questions related to spaces

The question of space is often approached in specific theatrical training courses, but not in circus: how to cross the border between the performing space (circus ring etc.) and the spectators' space?

Students can:

- Use tools that facilitate the projection of the performing space to the public
- Deliberately ignore spectators
- Physically interact with them
- Use accessories, music, their voice etc.
- Work on their breathing

They must work on reference points and other aids so that they feel as free as possible to use the tools outlined above.

The notion of time

One of the difficulties of performing an act lies in timing, as the performer's time does not correspond to the spectators' one.

Some hesitant students do not take enough time to create a presence on stage, nor to develop their technique and the artistic act.

The length of the piece allows spectators to fully discover the student and his/her artistic and technical piece.

On the other hand, confident students that trust their stage presence, feel at ease and enjoy being on stage, risk losing rigour and conciseness in their act, making the narrative or the acrobatics longer. Spectators end up feeling like they are being held hostages by the student for his/her own enjoyment.

Critique, feedback and "debriefing"

A critique/feedback of these acts is essential as they can measure the gap between the student's perception and the spectators' feelings. Even if artistic and technical expectations are high, this feedback must be constructive. Some young artists (and students) can be sensitive and sometimes it is easy to destroy an unfinished act with a clumsy comment.

Bruno Krief

© FEDEC 2012

Published by the European Federation of professional Circus Schools (FEDEC)

Chief editors: FEDEC AISBL / Timothy Roberts (President)

Authors: Sven Demey (coordination), Gérard Fasoli, Elena Fomina, Jonathan Fortin, Pascal Jacob, Bruno Krief, Martine Leroy, Howard Richard, Cyril Thomas
Expert participants-contributors: Yuri Bozyan, Estelle Clareton, Sven Demey, Elena Fomina, Victor Fomine, Jonathan Fortin, Lu Guang Rong, Bruno Krief, Martine Leroy, Pierrick Loizeau, Howard Richard
Active participants: Rasmus Aitouganov, Pierre Carrier, Martin Gerbier, Thierry Pecqueux, Steve Williams
Observers in the focus group: Daniela Arendasova, Gérard Fasoli
On-site logistics coordinator: Monique Marcil (National Circus School of Montréal)
National Circus School's artistic direction: Daniela Arendasova and Marc Lalonde
Demonstration pictures: Johan Brytz, Benjamin Courtenay, Joren Dawson, Bridie Hooper, Kerttu Pussinen, Jérôme Sordillon

Translation from the French: Luna Venturi-Wellington
Graphic design: Émilie Anseeuw
General coordination: Amandine André, Julie Buttier, Danijela Jović, Gaëlle Le Breton, Mathilde Robin
Reviewer: Sven Demey

This manual is the result of an aerial straps' training module organised by FEDEC, and held at the National Circus School of Montreal from 19th to 23rd March 2012.

All reproductions or translations are strictly forbidden without the previous permission of the copyright holder.

This project has been made possible thanks to the European Commission (DG education and culture –life-long learning programme). The author is liable for the publication and the European Commission does not accept any responsibility for the use of the information contained within this document.

 © FEDEC 2012

© Photos : Cover: Centre National des Arts du Cirque - Michaël Vessereau - Philippe Cibille / P 2 : Le Lido - Tania Cervantes - Christophe Trouilhet / P 5 : Centre National des Arts du Cirque - Kasper Holm - Philippe Cibille / P 6 : National Centre for Circus Arts - Anonyme - Bertil Nilsson / P 9 : Scuola di Cirko Vertigo - Salvo Cappello - Maurizio Andruetto / P 14 : École nationale de cirque - Anonyme - Roland Lorente / P 17 : École de Cirque de Bordeaux - Gloria Villavicencio et Mael Deslandes - Tom Lacoste / P 18 : Centre National des Arts du Cirque 2011 - Jonas Leclere - Philippe Cibille / P 20 : École nationale de cirque - Anonyme - RolandLorente / P 22 : Centre des Arts du Cirque Balthazar - Anonyme - Corinne Gal / P 23 : Le Lido - Tania Cervantes - Christophe Trouilhet / P 24-25 : Centre National des Arts du Cirque 2011 - Jonas Leclere - Philippe Cibille / P 49 : Centre National des Arts du Cirque 2011 - Jonas Leclere - Philippe Cibille / P 62 : Académie Fratellini - Anonyme - Julie Carretier-Cohen / P 66 : Centre National des Arts du Cirque - Jérôme Galan - Philippe Cibille / P 71 : Centre National des Arts du Cirque - Kasper Holm - Philippe Cibille / P 72 : National Centre for Circus Arts - Anonyme - Bertil Nilsson / P 78 : Centre National des Arts du Cirque - Michaël Vessereau - Philippe Cibille

www.fedec.eu



FEDEC

EUROPEAN FEDERATION
OF PROFESSIONAL
CIRCUS SCHOOLS