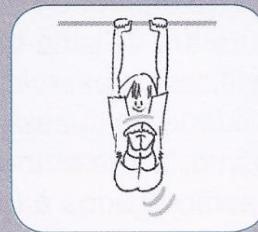


# Fundamentos da Ginástica Artística



# Filosofia Educacional

DIVERSÃO  
(Fun)



APTIDÃO  
FÍSICA  
(Fitness)

FUNDAMENTOS  
(FUNdamentals)

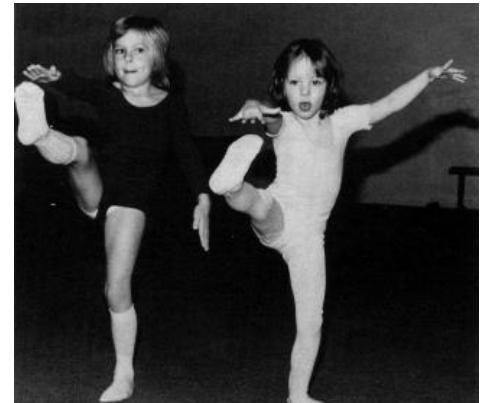


## Aptidão Física

- ❖ Flexibilidade
- ❖ Força
- ❖ Potência
- ❖ Resistência
- ❖ Orientação Espacial
- ❖ Equilíbrio

## Prazer

- ❖ Permanência na atividade
- ❖ Sucesso
- ❖ Desafio
- ❖ Motivação
- ❖ Variedade de estilos de ensino
- ❖ Variedade de experiências



## Fundamentos

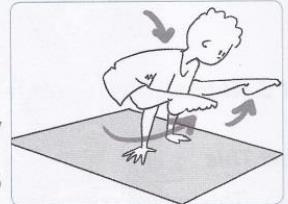
- ❖ Padrões Básicos de Movimento

# FUNDAMENTOS



## Keith Russell

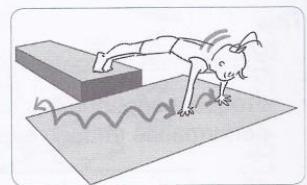
stationary  
positions



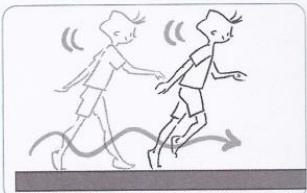
landing



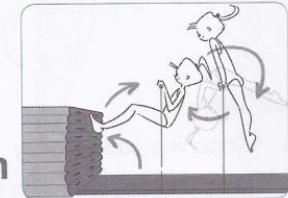
spring



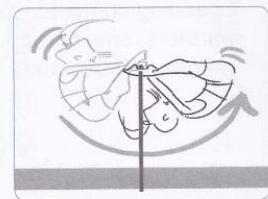
locomotion



rotation



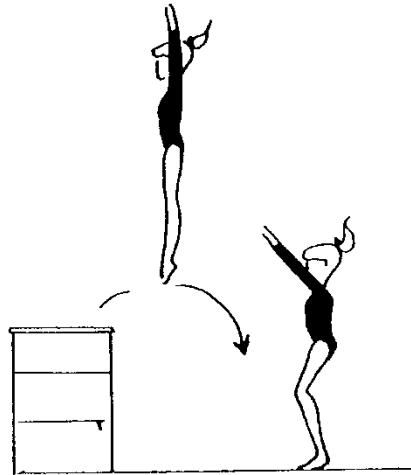
swing



# ANÁLISE MECÂNICA DA GINÁSTICA

## Fundamentos:

- ❖ Centro de Massa desacelera com segurança
- ❖ Centro de Massa permanece dentro da Base
- ❖ Centro de Massa desloca rapidamente
- ❖ Centro de Massa desloca repetidamente
- ❖ Corpo gira em torno do eixo interno (CM)
- ❖ Centro de Massa gira em torno de um eixo externo

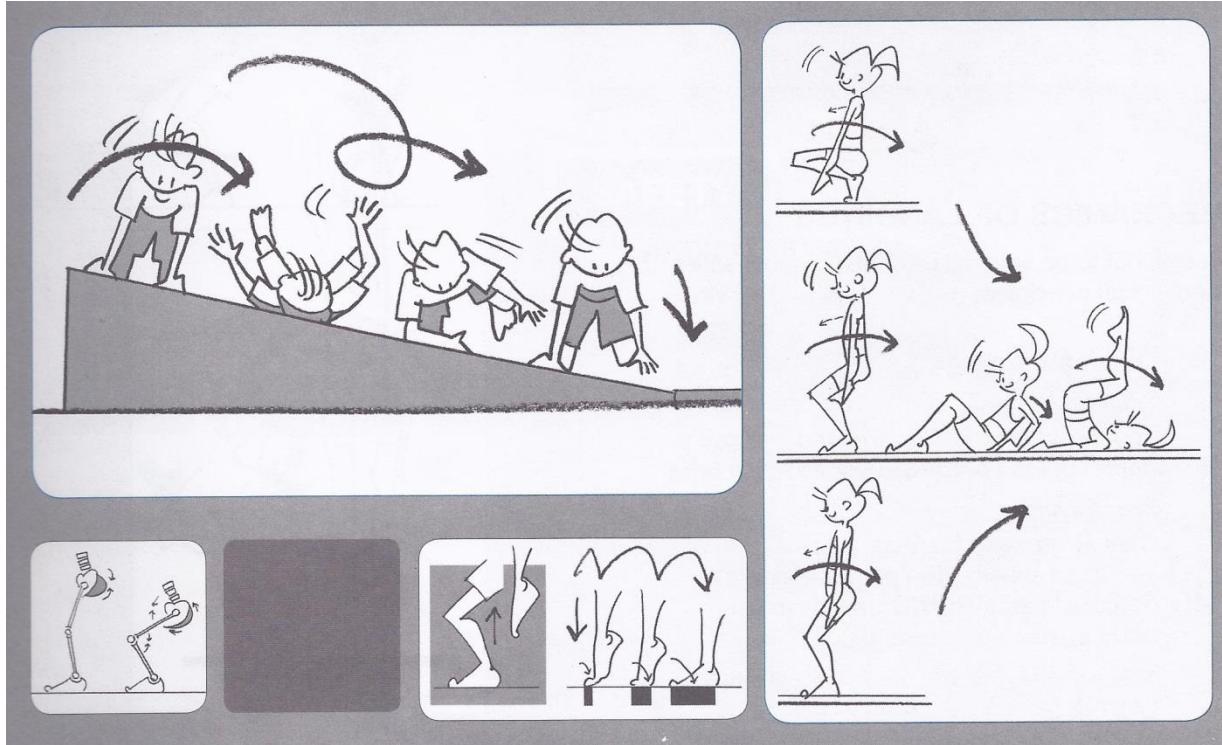


# Aterrissagens

- ❖ Centro de Massa desacelera com segurança

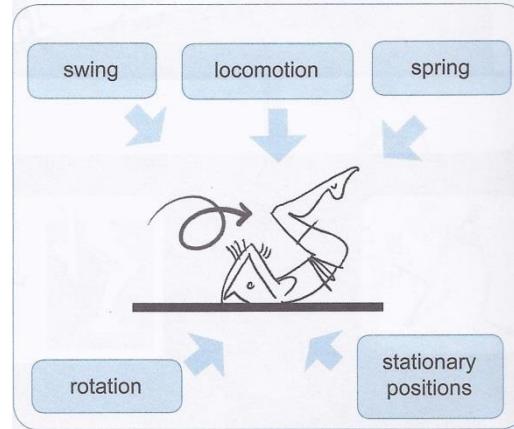
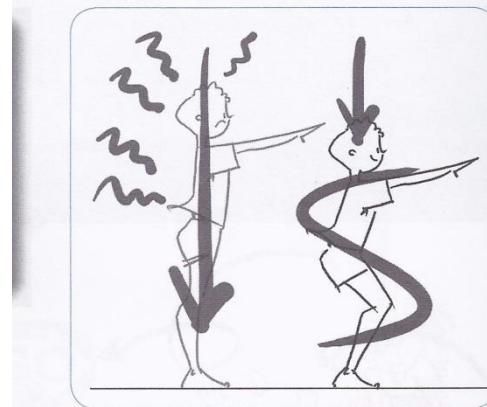
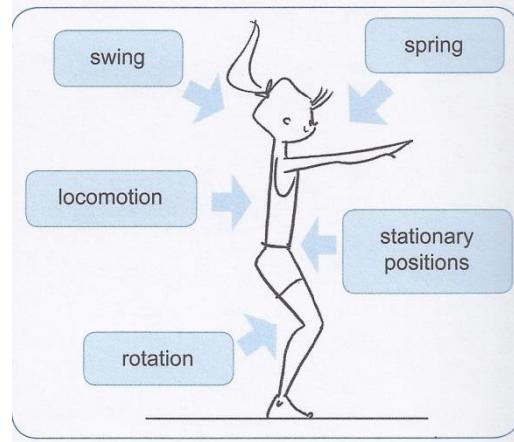
Atenuar a força das aterrissagens:  
ampliar tempo e superfície de contato

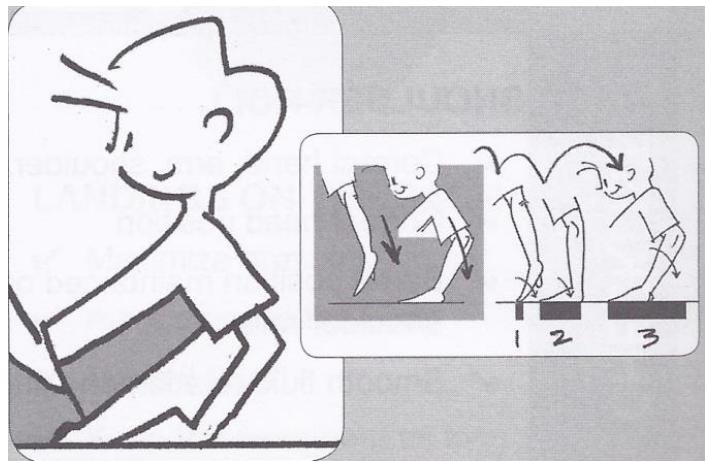
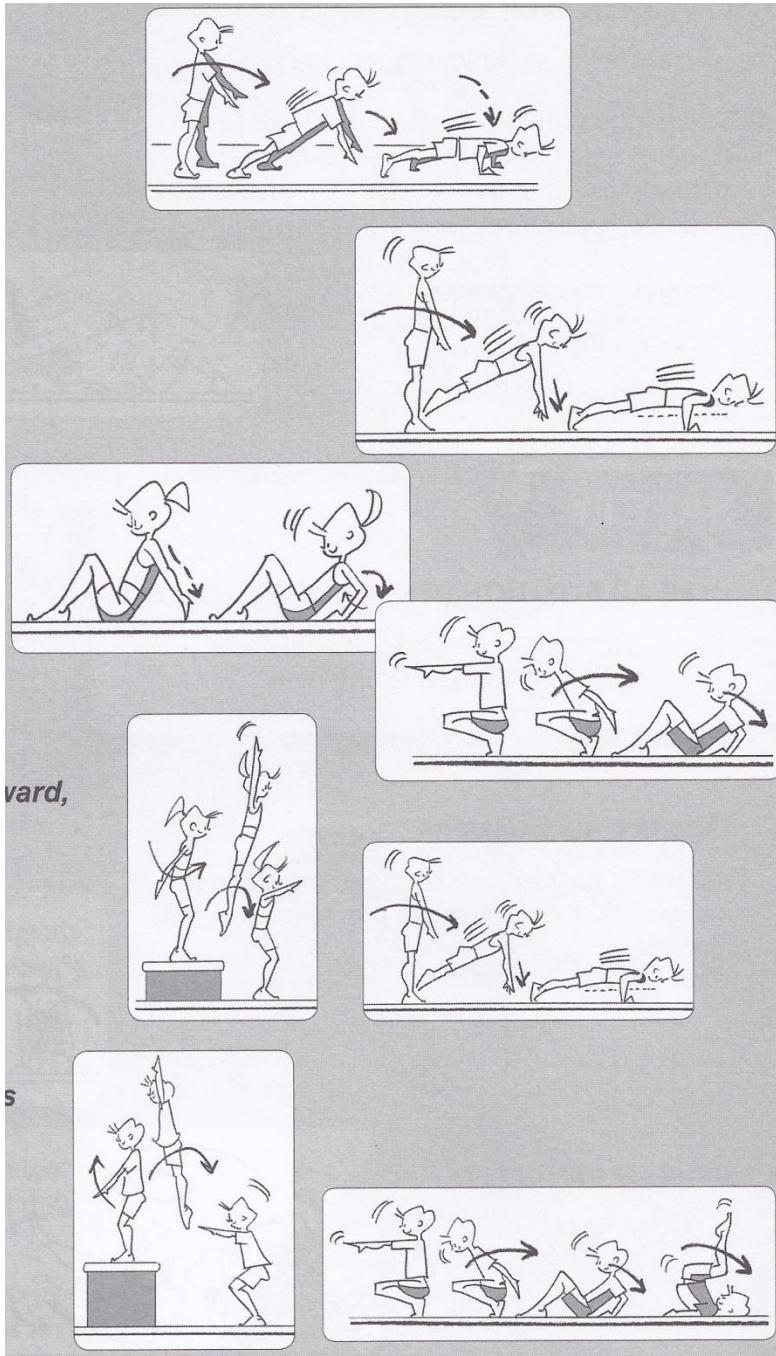
# Aterrissagens

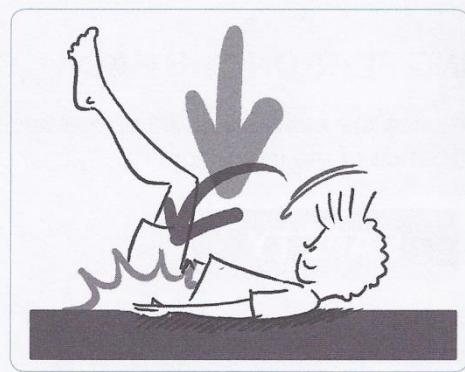


Sobre os pés  
Sobre as mãos  
Sobre as costas  
Em rotação

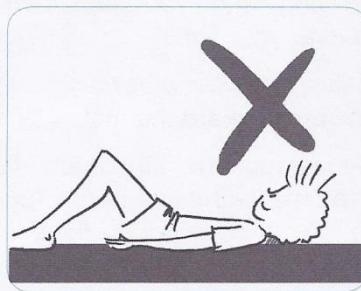
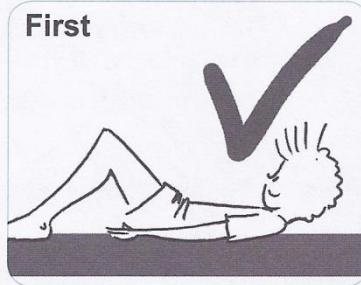
Altura  
Direções  
Configurações  
Superfícies  
Equipamentos



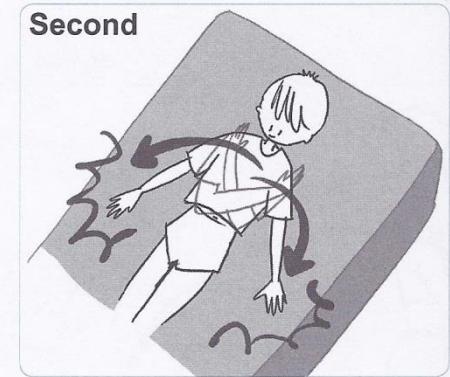


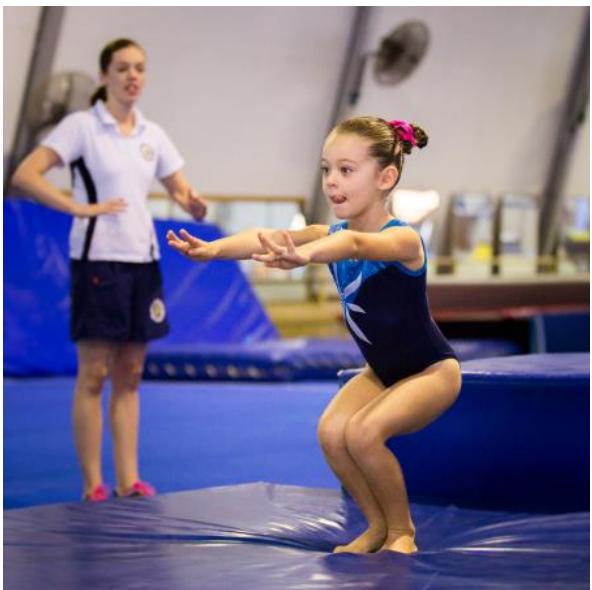


First



Second





## **Landings**

<https://www.youtube.com/watch?v=R38UhOxgl5c>

<https://www.youtube.com/watch?v=bNOGyi8J2tq>

<https://www.youtube.com/watch?v=-lYdFYK0Mol>

## **Stick Your Landing**

<https://www.youtube.com/watch?v=sGzc99vLrkU>

<https://www.youtube.com/watch?v=zP31dhCqnHg>

## **Landings deductions**

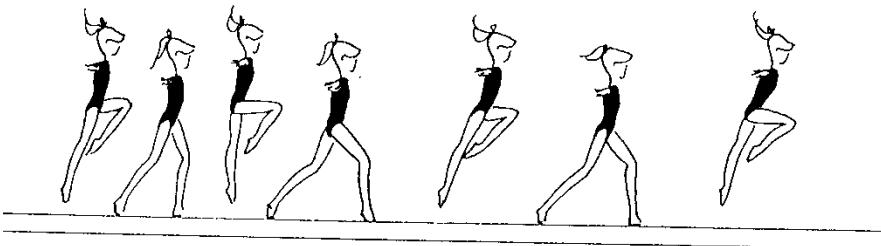
<https://www.youtube.com/watch?v=qVB1iNwjy1U>

[https://www.youtube.com/watch?v=-\\_fbKADcRAA](https://www.youtube.com/watch?v=-_fbKADcRAA)

## **Everything can happen**

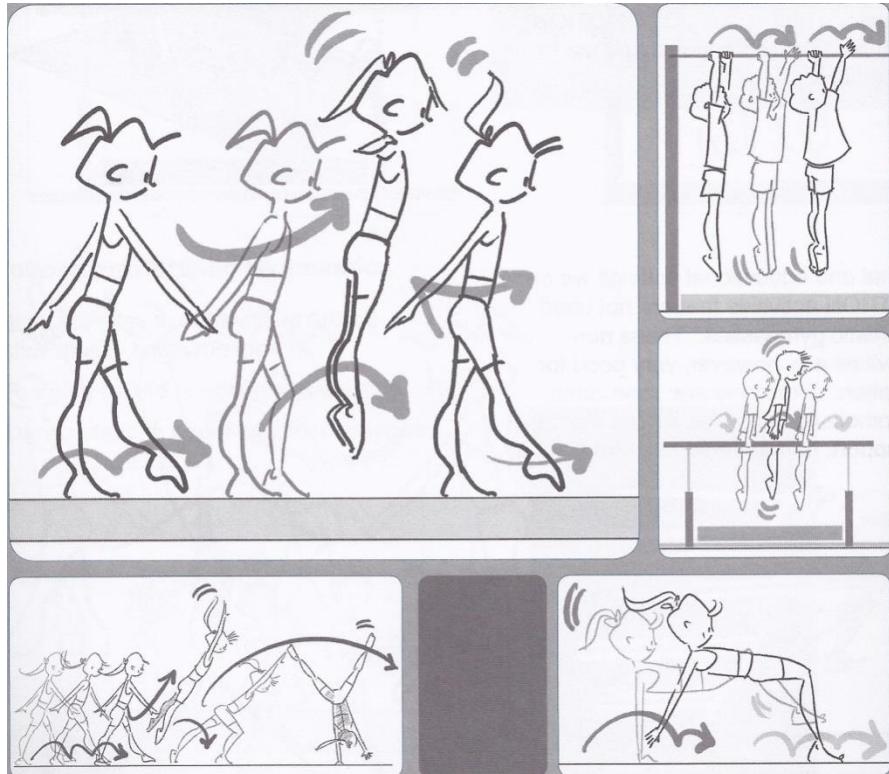
<https://www.youtube.com/watch?v=KCgqVisO498>

# Deslocamentos



- ❖ Centro de Massa desloca repetidamente

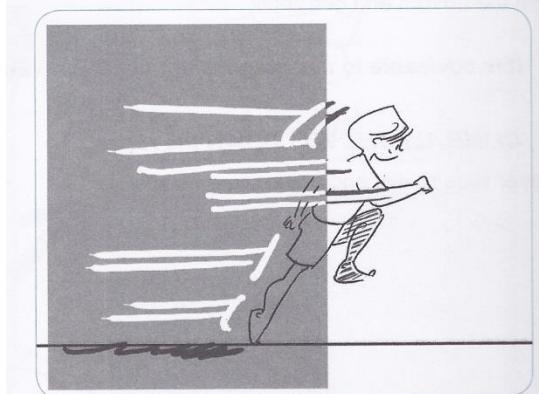
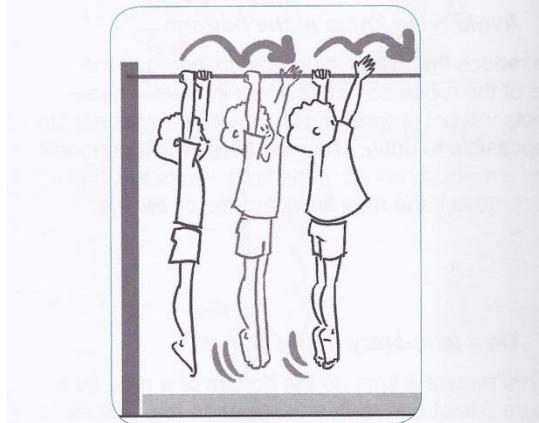
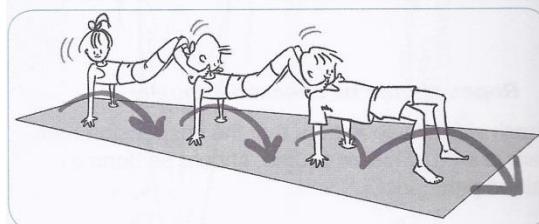
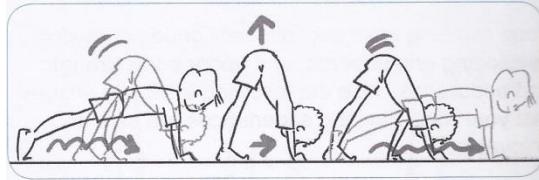
Aplicar a força diretamente ao CM e desenvolver a potência dos músculos para aumentar força e manter corpo rígido



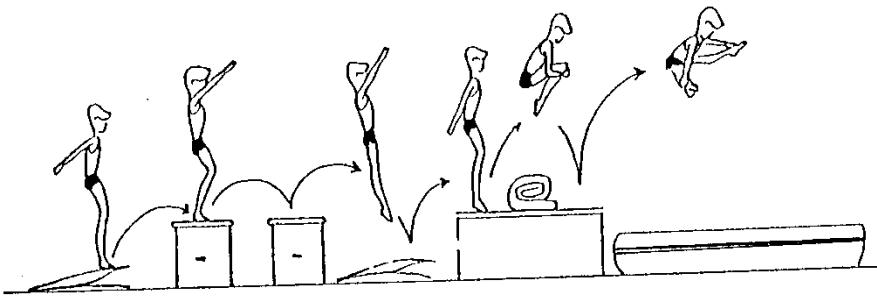
Sobre os pés  
Em apoio  
Sobre os equipamentos  
Em suspensão  
Em outros PBMs

# Deslocamentos

Direções  
Trajetórias  
Níveis  
Ritmo  
Equipamentos  
Partes do corpo para apoio

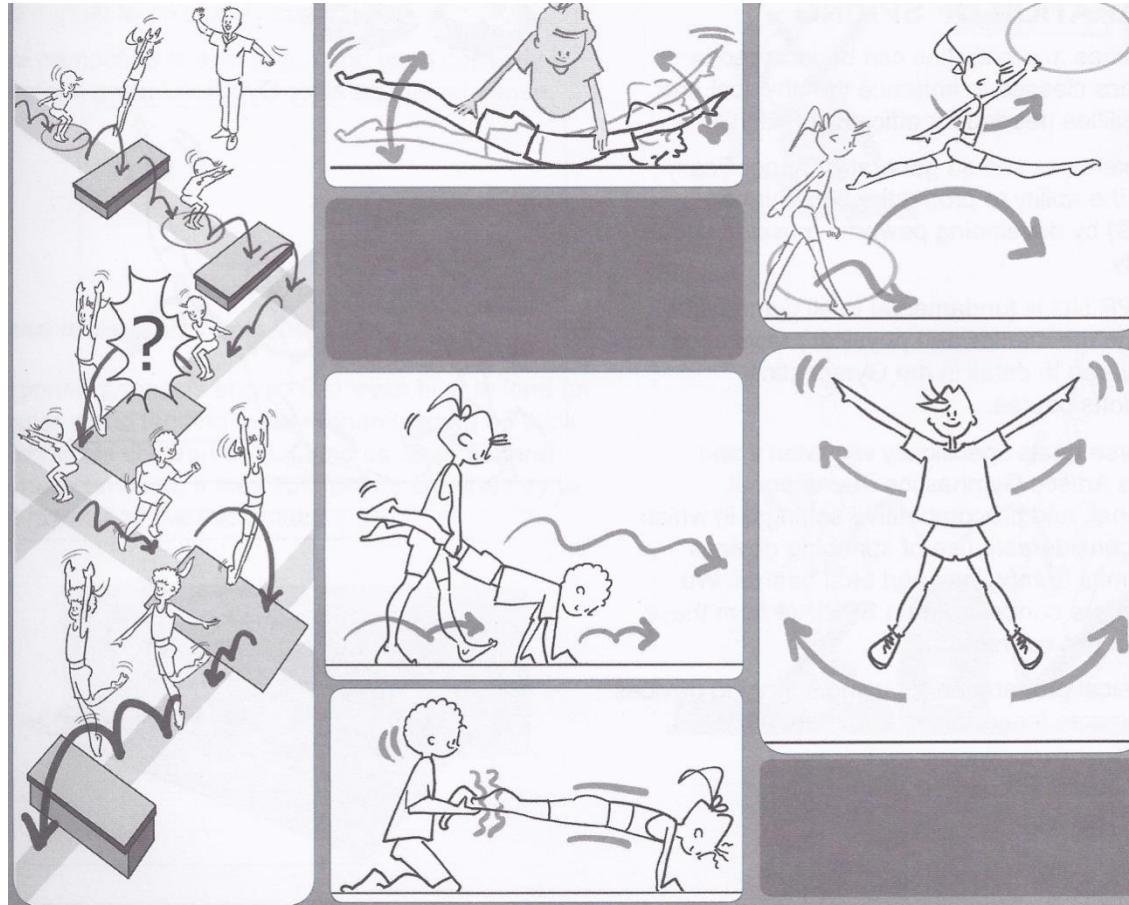


# Saltos



- ❖ Centro de Massa desloca rapidamente

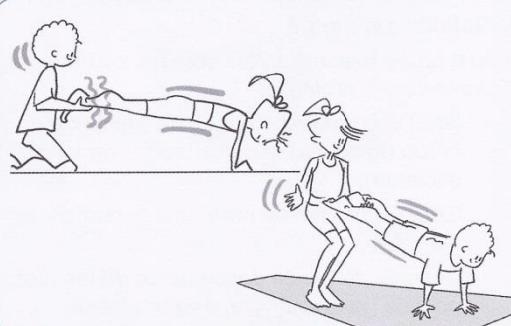
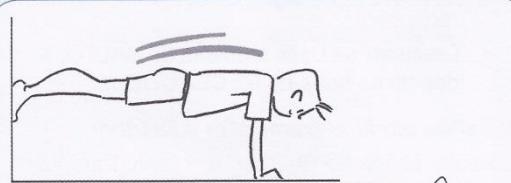
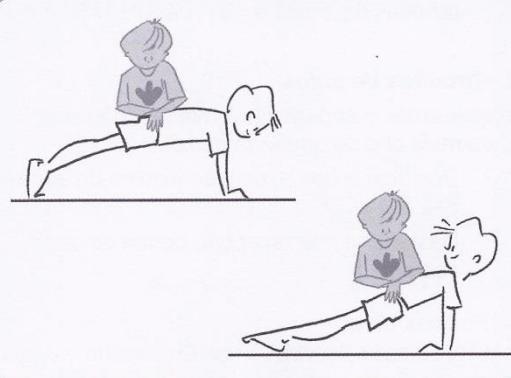
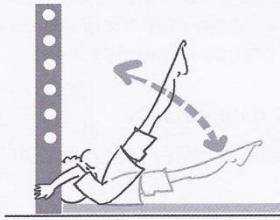
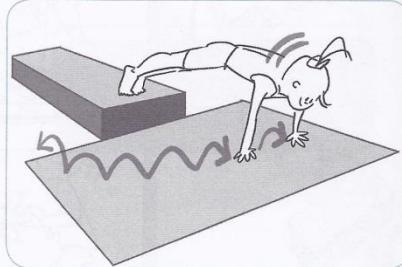
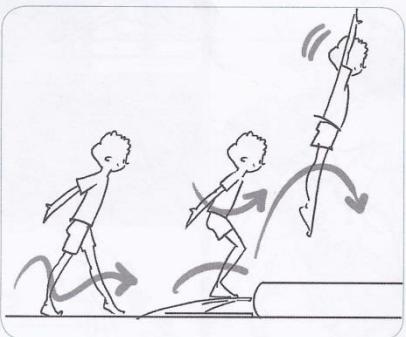
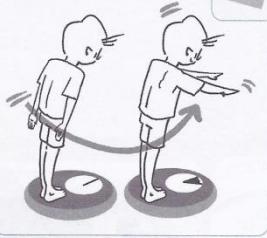
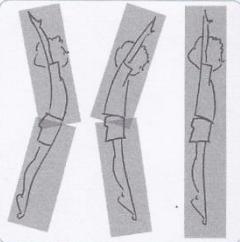
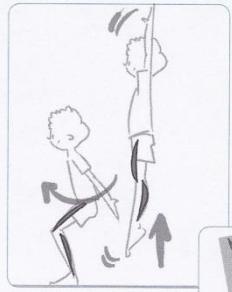
Aplicar força diretamente no CM para provocar movimento linear explosivo e desenvolver a potência dos músculos para aumentar força e manter corpo rígido



# Saltos

De um pé  
Dos pés  
Das mãos  
De pés e mãos

Configuração  
Equipamento para propulsão  
Equipamento



## Evolução do Salto

<https://www.youtube.com/watch?v=7OxCicwNKfM>

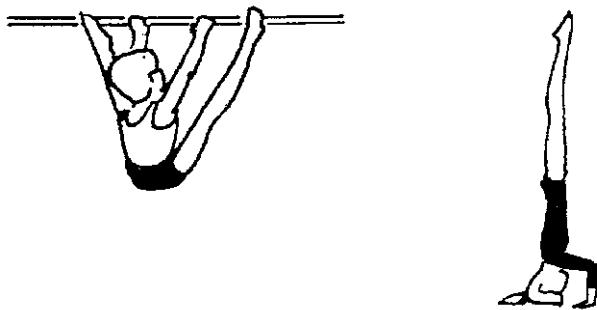
Desenvolvimento básico para saltos

<https://www.youtube.com/watch?v=-jGvoMMxnzY>

<https://www.youtube.com/watch?v=-jGvoMMxnzY>

[https://www.youtube.com/watch?v=SqqkGY0I\\_L0](https://www.youtube.com/watch?v=SqqkGY0I_L0)

# Posições estacionárias

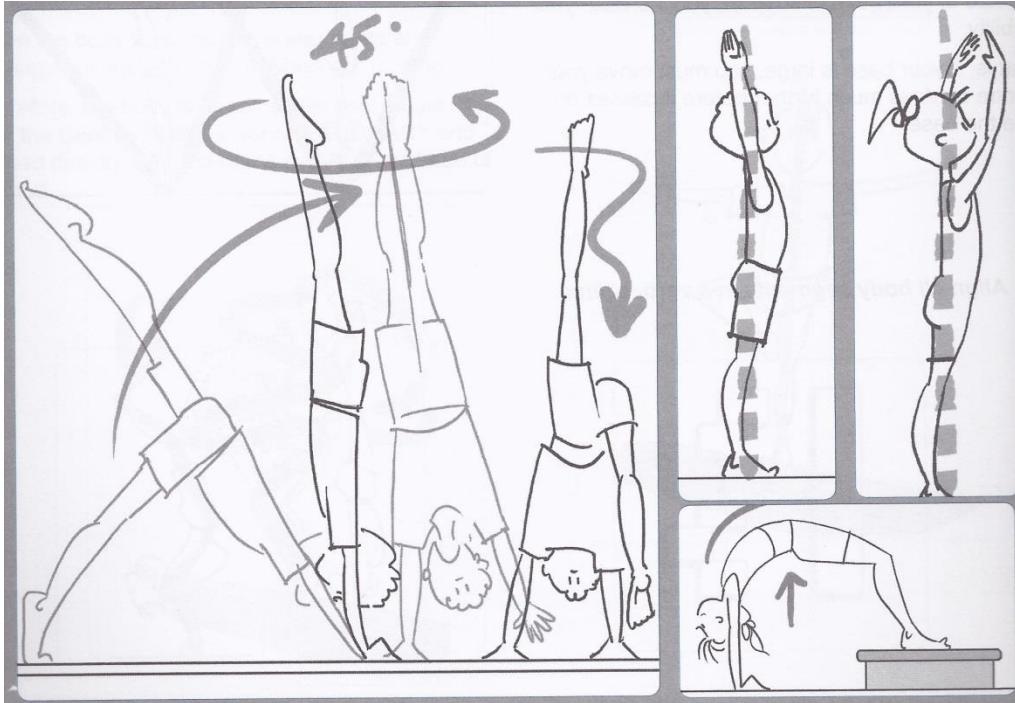


- ❖ Centro de Massa permanece dentro da Base

**Centro de Massa sempre permanece  
dentro da base de apoio.**

Para aumentar a estabilidade, abaixar o CM,  
manter o corpo rígido, ampliar a BA

# Posições estacionárias



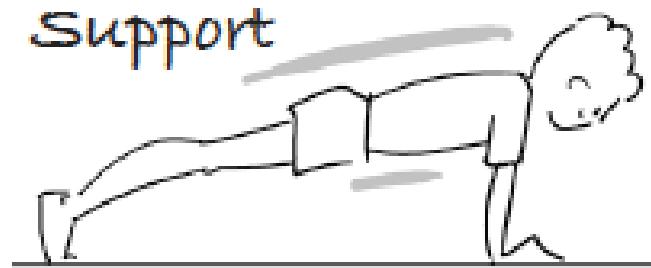
Equilíbrios  
Apoios  
Suspensões

Equipamentos  
Partes do corpo  
Configurações

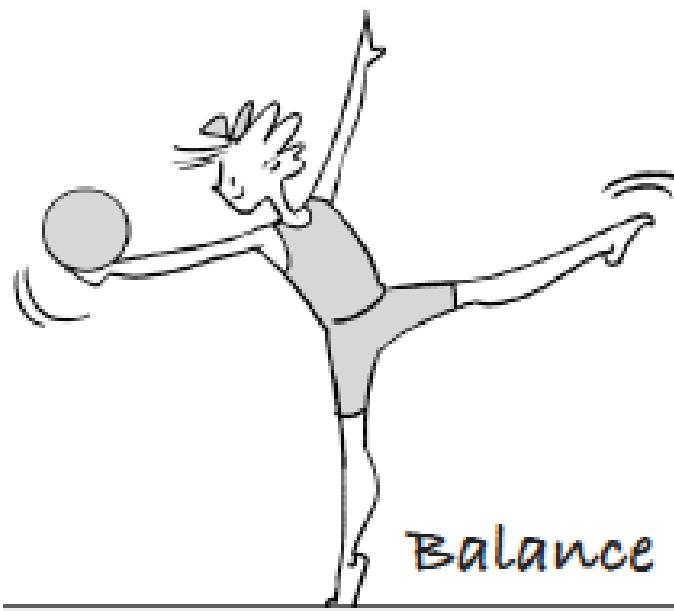
## STATIONARY POSITIONS - 3 CATEGORIES



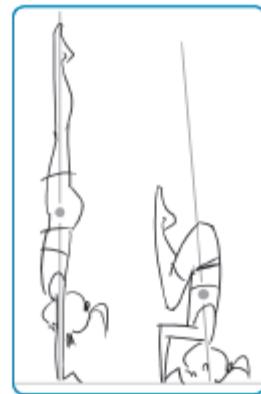
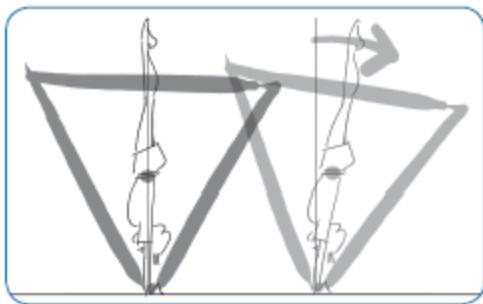
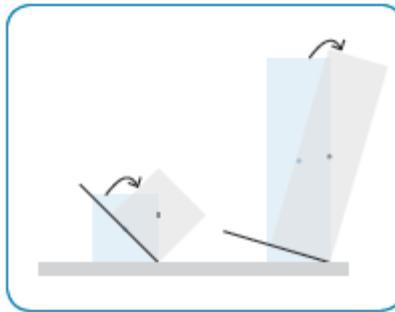
Hang

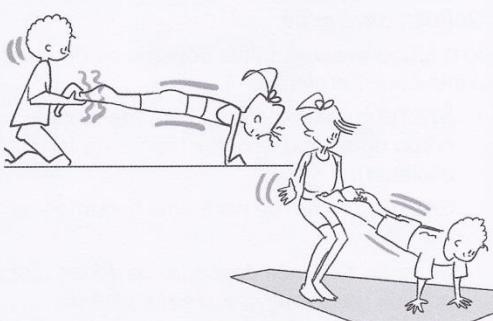
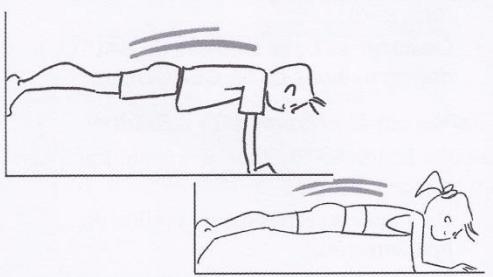
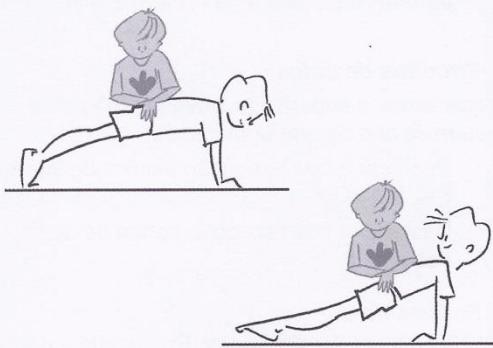
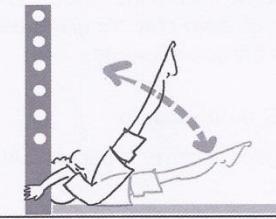


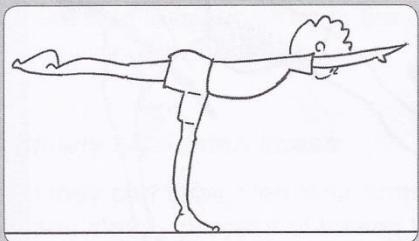
Support



Balance



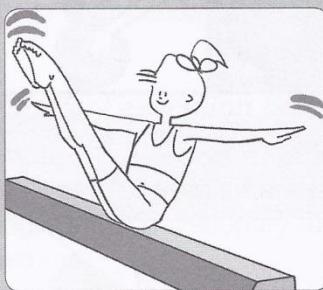
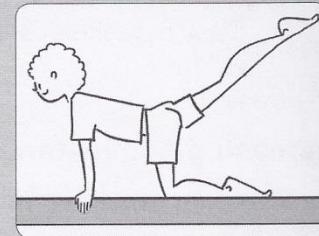




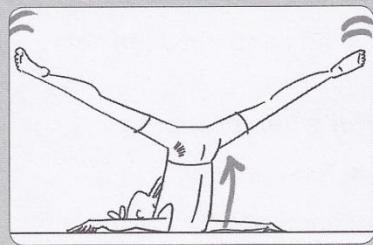
**1. Balancing on the Feet**



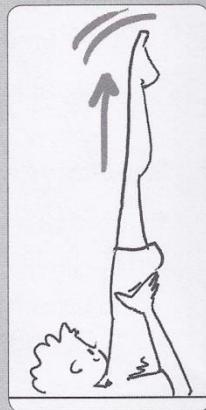
**2. Balancing on the Knees**

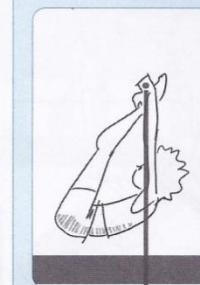
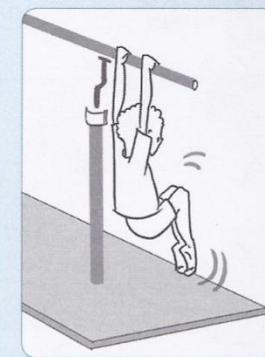
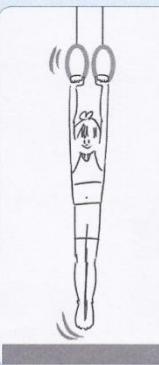
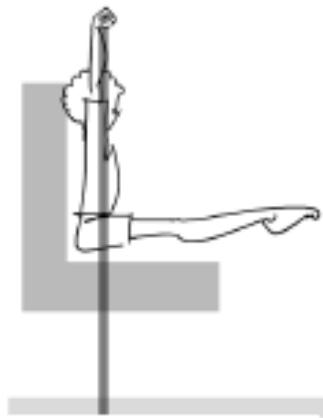
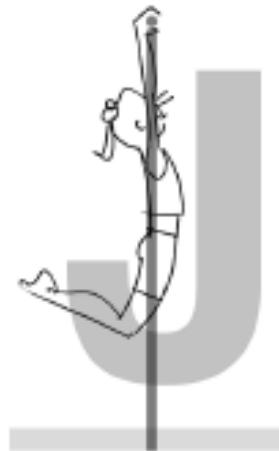


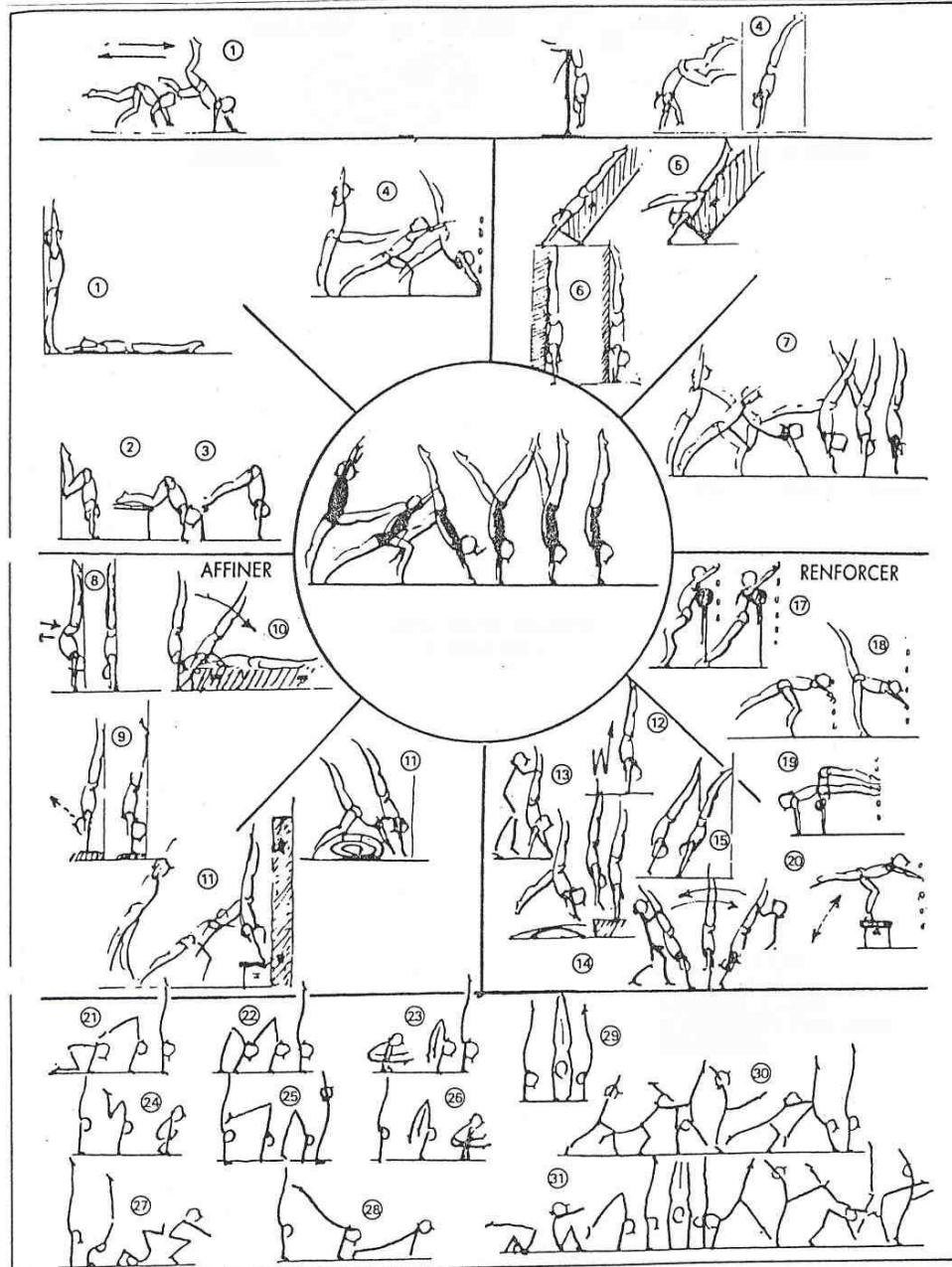
**3. Balancing on the Seat**



**4. Balancing on the Shoulders**







THOMAS, L.; FIARD, J.  
Associations, s/d.

## **Trave de equilíbrio**

<https://www.youtube.com/watch?v=X8yAM6Hecl8>

<https://www.youtube.com/watch?v=FTEYf1iiCeY>

<https://www.youtube.com/watch?v=42XF6cqF4c8>

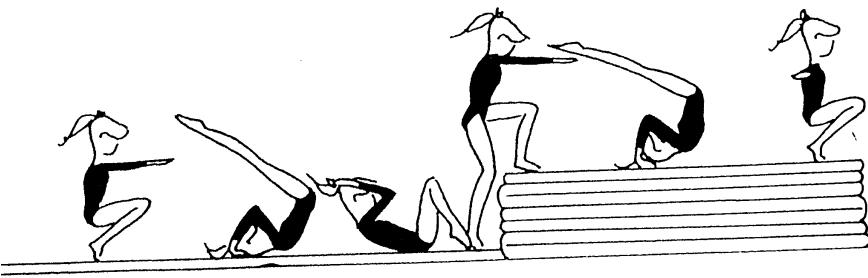
## **Rings**

<https://www.youtube.com/watch?v=1neOPN1aKAo>

<https://www.youtube.com/watch?v=jk2Wxp0lfEw>

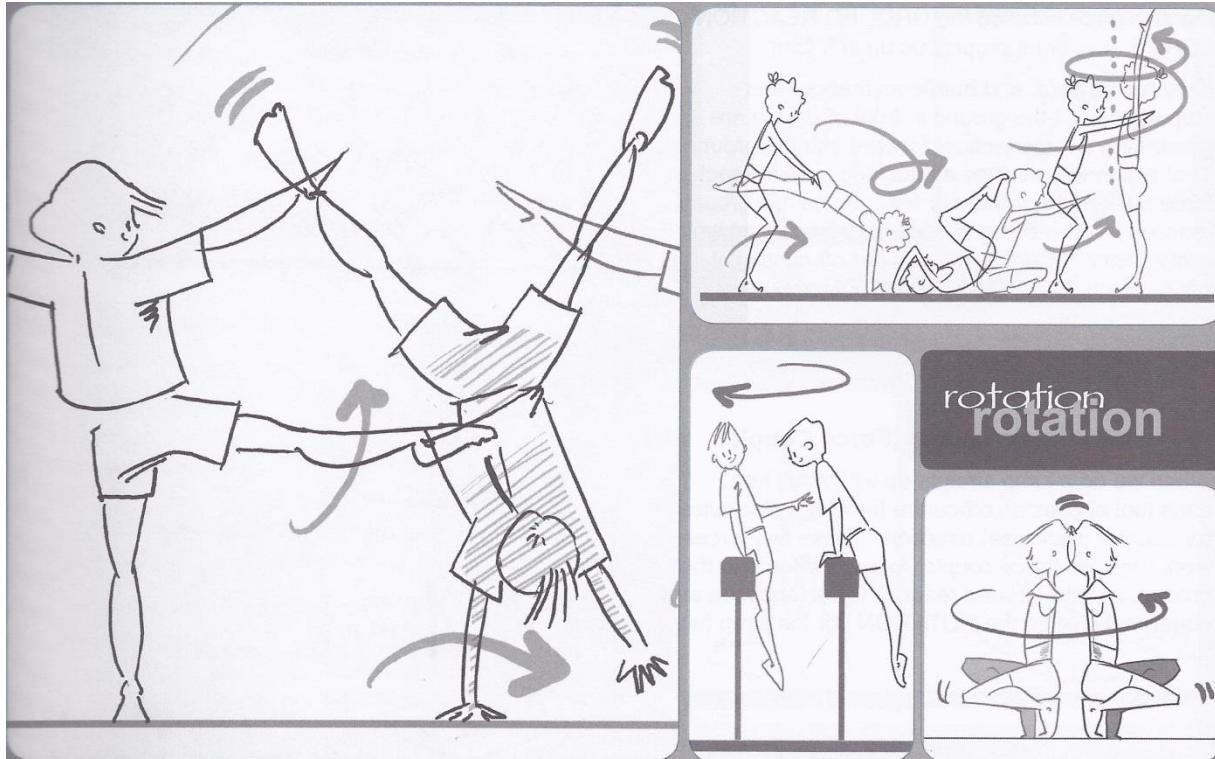
<https://www.youtube.com/watch?v=ewT0CH2by3E>

# Rotações



- ❖ Corpo gira em torno do Centro de Massa (eixo interno)

Gerar efeito de giro fora do centro  
(ou forças duplas) e para alterar a rotação variar  
A distribuição da massa corporal ao redor do eixo



# Rotações

Eixo longitudinal

Eixo transversal

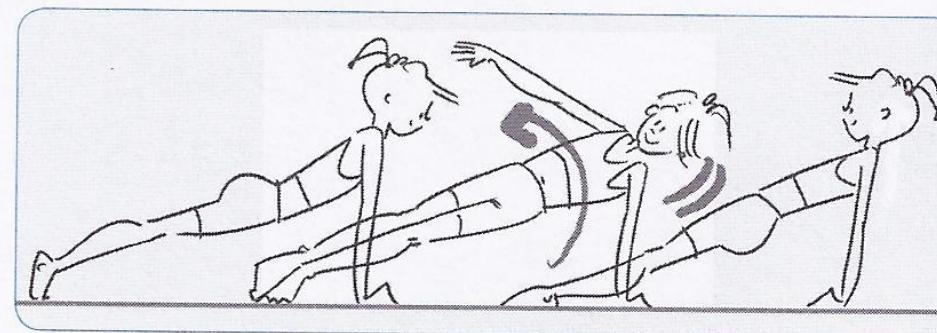
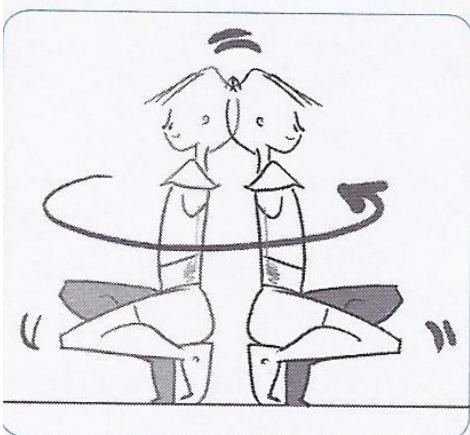
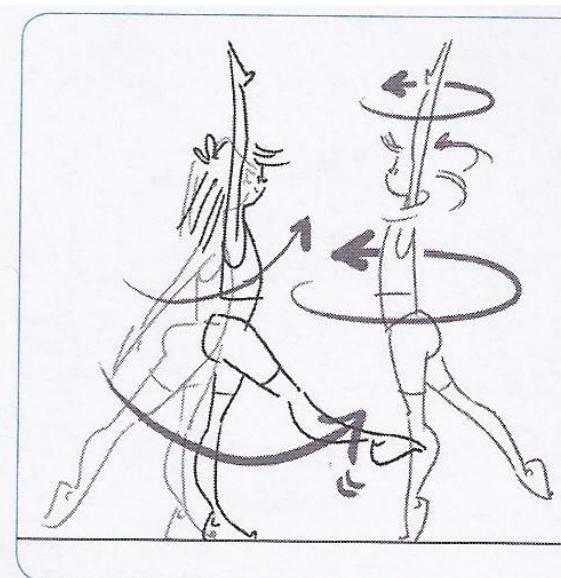
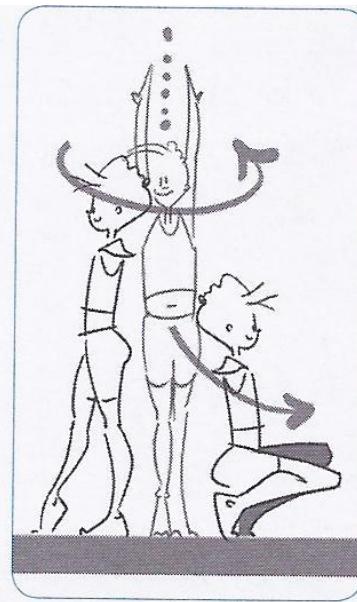
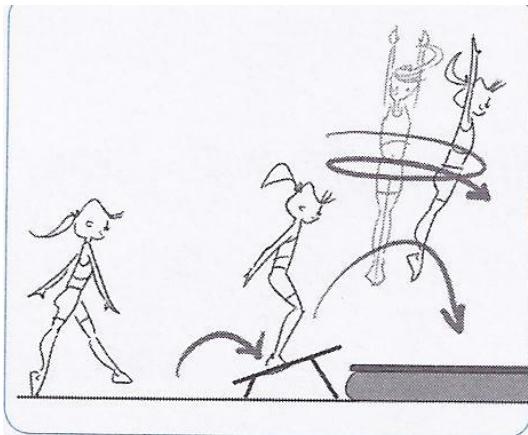
Eixo ântero-posterior

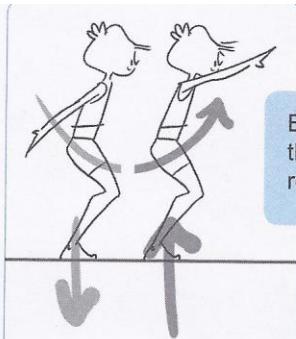
Combinações

Posições inicial e final

Equipamento

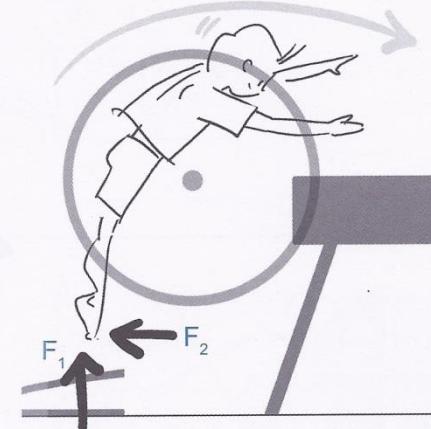
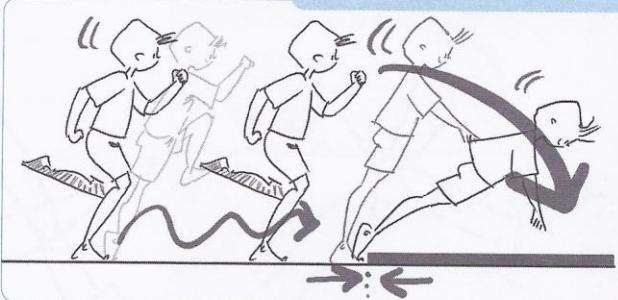
Configurações



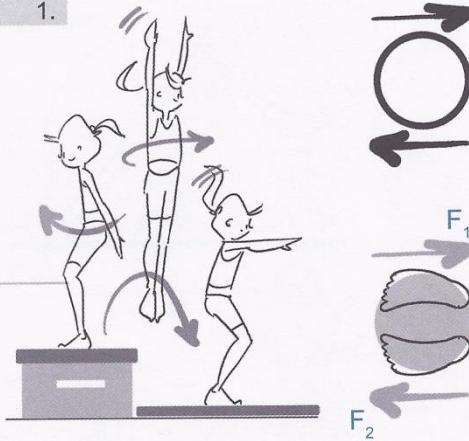


Equal and opposite forces propel the gymnast upwards without rotation

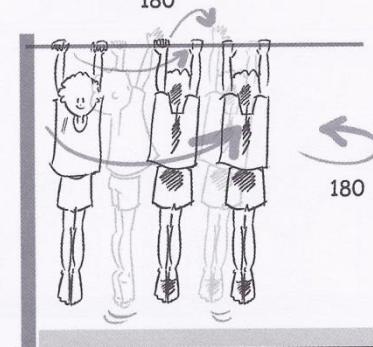
Equal and opposite forces cause the gymnast to rotate - momentum forward is converted into rotation

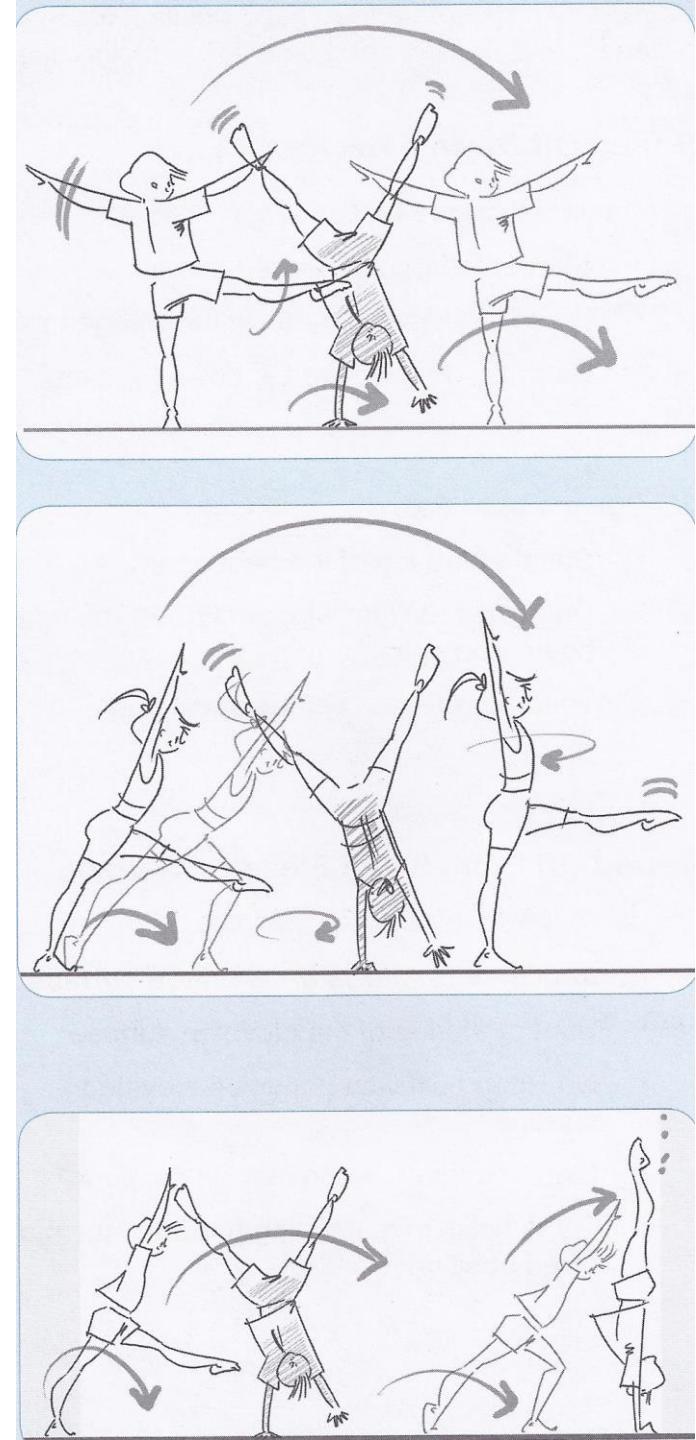
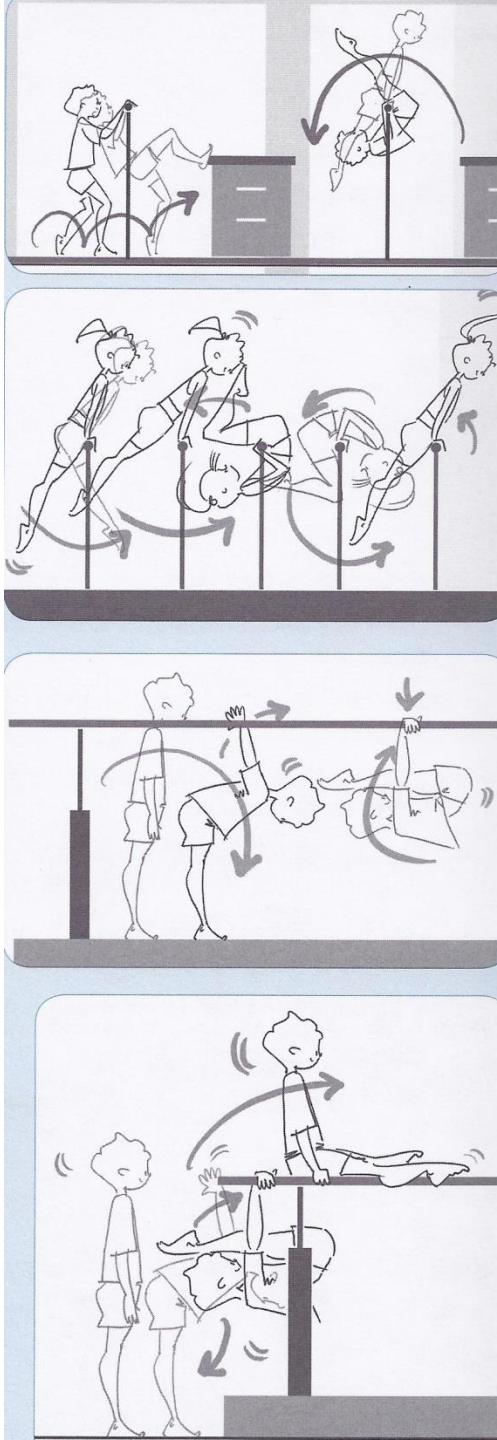
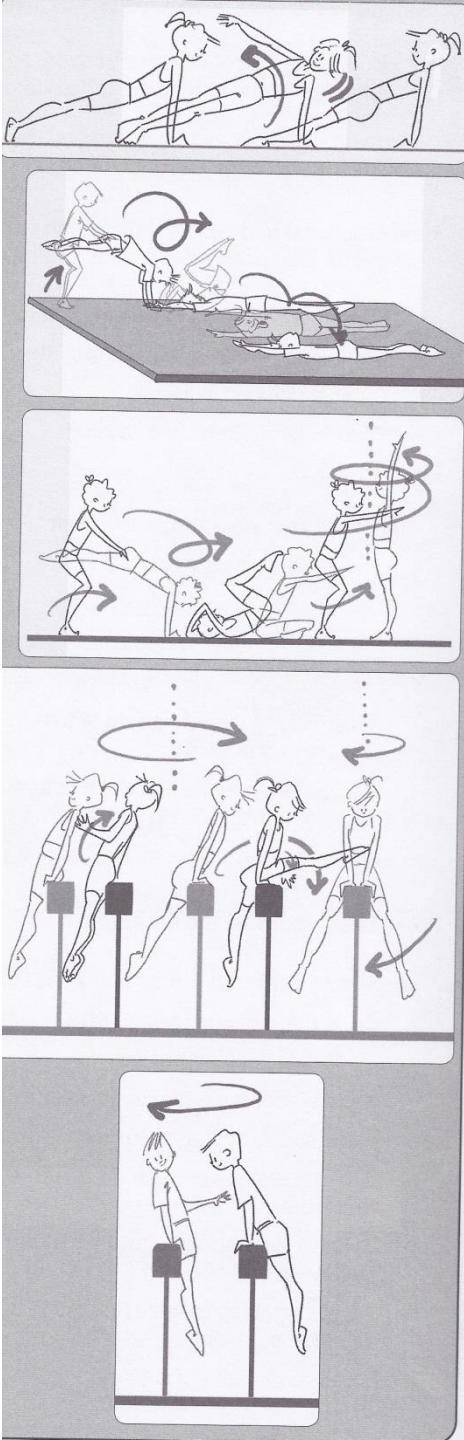


1.



2.





## **Solo**

[https://www.youtube.com/watch?v=Ya\\_L5FkSZhA](https://www.youtube.com/watch?v=Ya_L5FkSZhA)

<https://www.youtube.com/watch?v=Tgl9DEYHBv0>

## **Flic flac**

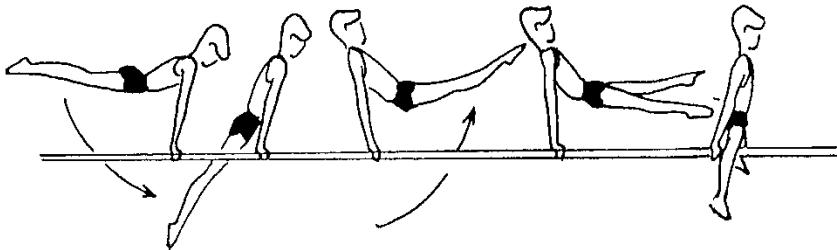
<https://www.youtube.com/watch?v=mAwUzFtU8VQ>

<https://www.youtube.com/watch?v=2-fyG04lbm4>

<https://www.youtube.com/watch?v=5-glxragoWw>

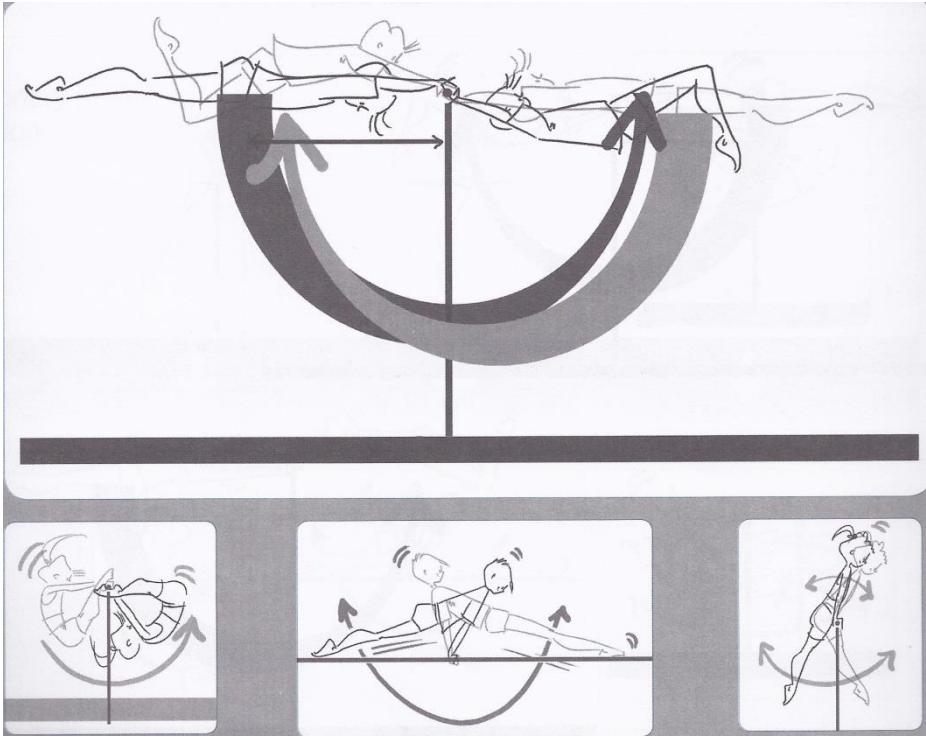
[https://www.youtube.com/watch?v=T7-qgv\\_D538](https://www.youtube.com/watch?v=T7-qgv_D538)

# Balanços



- ❖ Centro de Massa gira em torno de um eixo externo

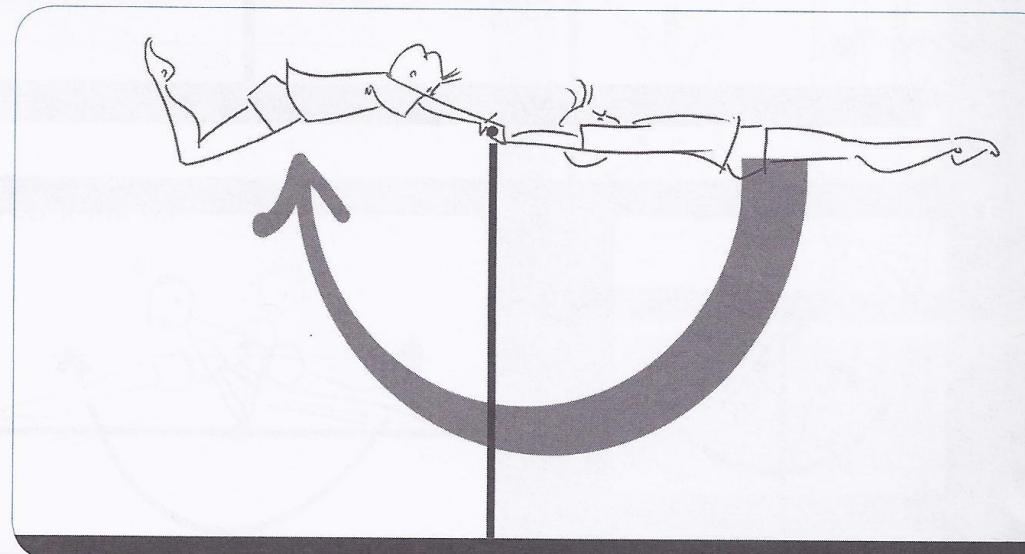
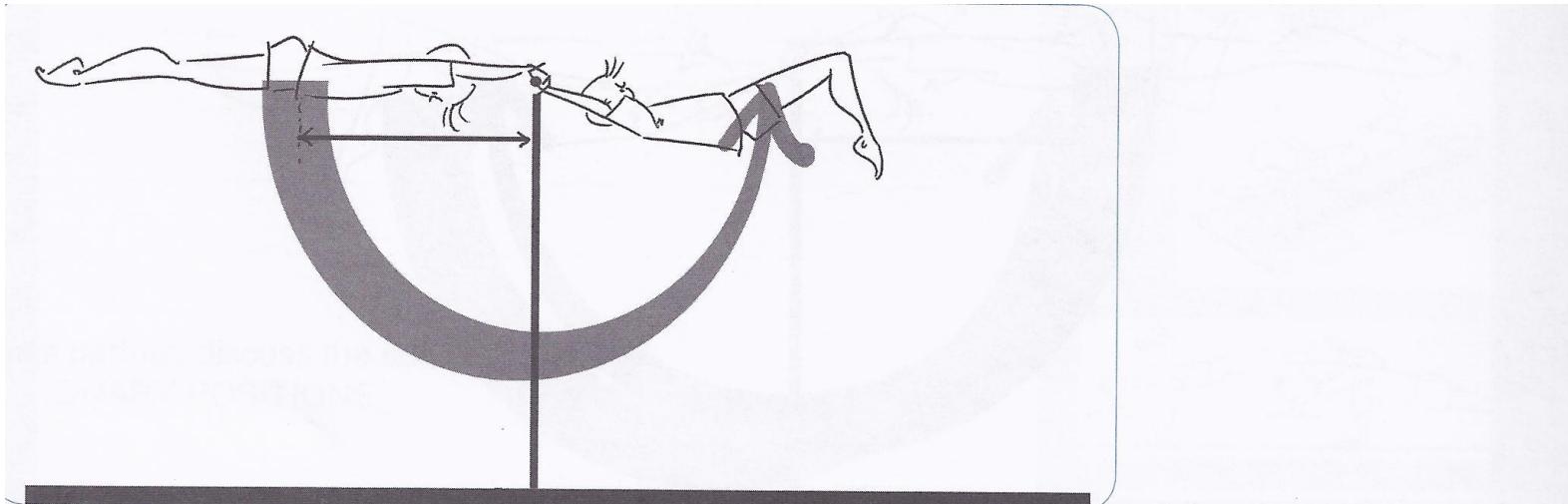
Mover o CM perto/longe do eixo na fase ascendente/descendente

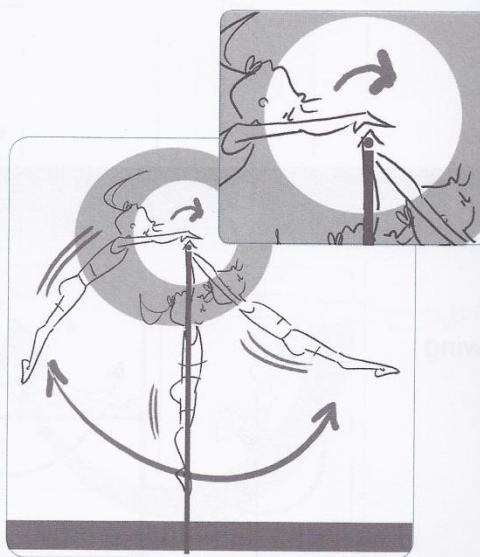
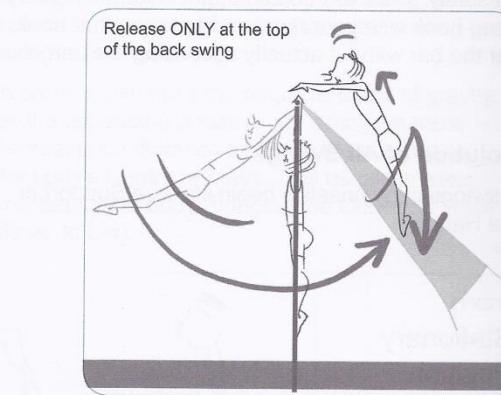
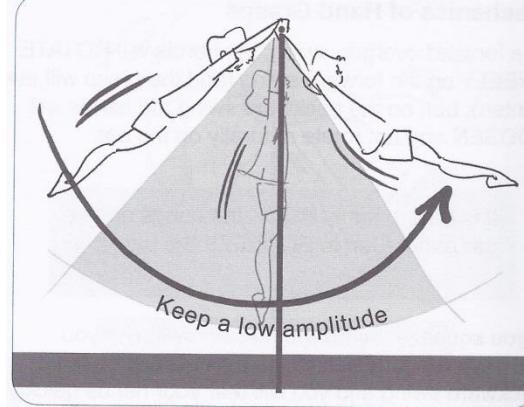
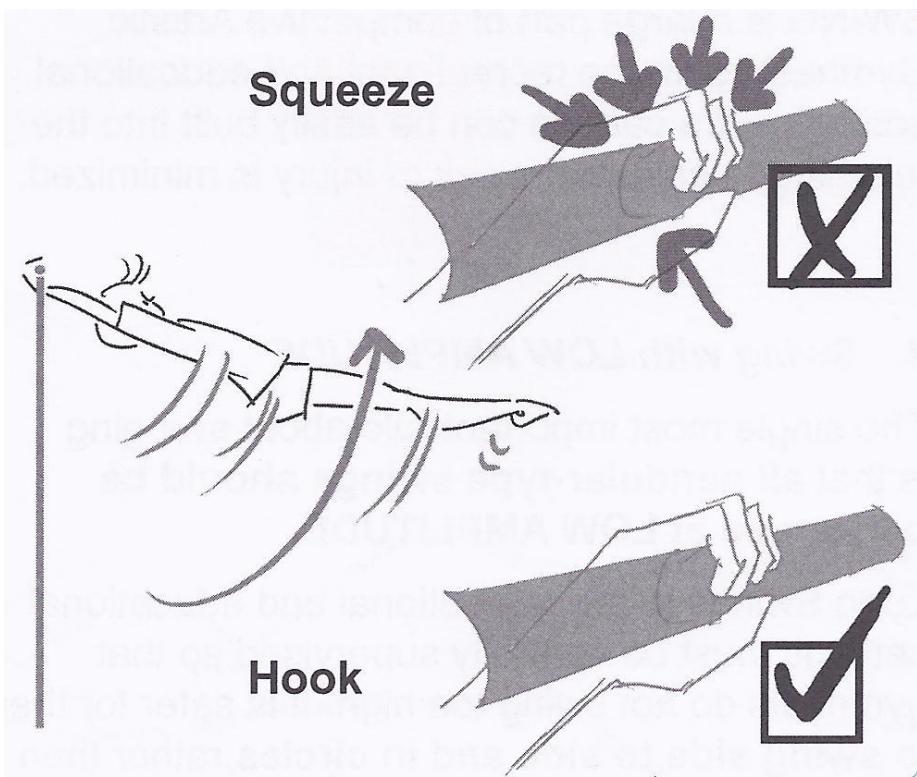


Suspensão  
Apoio  
Combinações

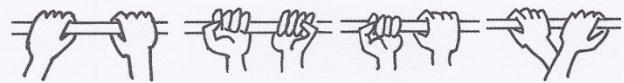
# Balanços

Empunhaduras  
Posição das partes do corpo  
Configurações  
Equipamentos  
Altura  
Partes do corpo para apoio  
Amplitude

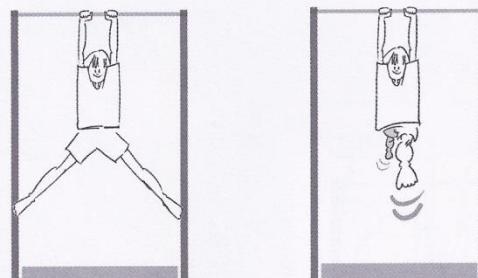
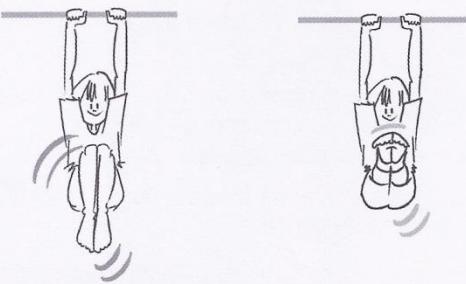




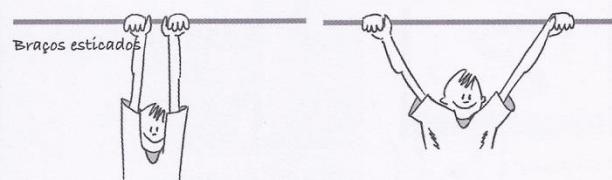
por cima      por baixo      mista      cruzada



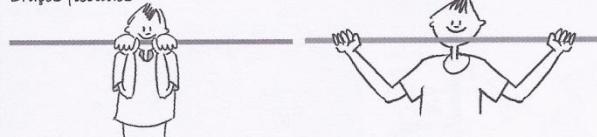
variações das mãos



variação de pernas

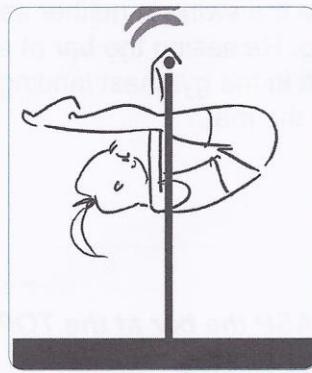
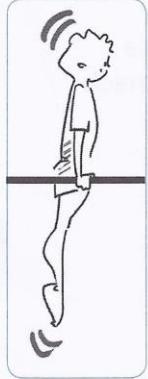
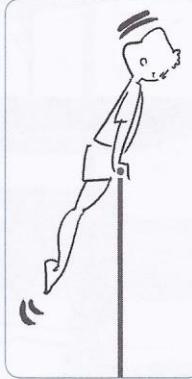


Braços flectidos

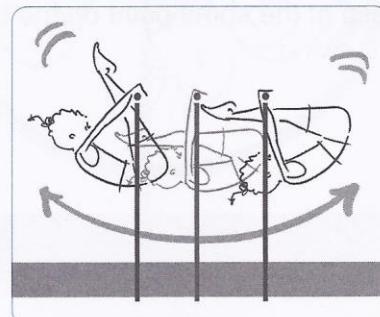
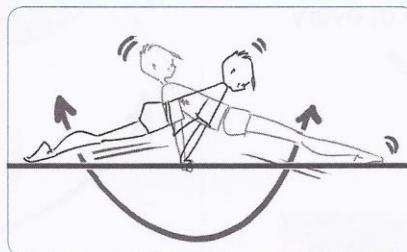
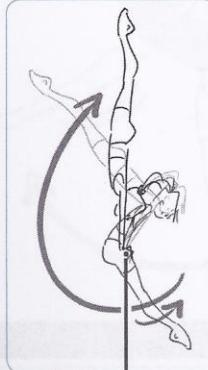


variação de braços

from  
Stationary  
Position



↓  
to  
Swing



## **Barra fixa**

<https://www.youtube.com/watch?v=I0TM2sOnvyl>

<https://www.youtube.com/watch?v=wFThHAFrJSU>

<https://www.youtube.com/watch?v=y4J8aoQdxX4>

[https://www.youtube.com/watch?v=nktKwL\\_1o-k](https://www.youtube.com/watch?v=nktKwL_1o-k)

## **Cavalo com alças**

<https://www.youtube.com/watch?v=LtDst66o65U>

<https://www.youtube.com/watch?v=Le6fNx5IWRI>

## **Paralelas**

[https://www.youtube.com/watch?v=\\_lopPrO9LXc](https://www.youtube.com/watch?v=_lopPrO9LXc)

## **Rings**

[https://www.youtube.com/watch?v=7Fuao\\_2XeZ4](https://www.youtube.com/watch?v=7Fuao_2XeZ4)

<https://www.youtube.com/watch?v=1neOPN1aKAo>

<https://www.youtube.com/watch?v=jk2Wxp0IfEw>

<https://www.youtube.com/watch?v=ewT0CH2by3E>

Paralelas assimétricas

[https://www.youtube.com/watch?v=MDliHSA\\_Y1c](https://www.youtube.com/watch?v=MDliHSA_Y1c)

# Quiz

**Qual o aparelho em que podemos  
executar todos os fundamentos?**

# TAREFA

**Existe uma ordem cronológica  
para o ensino dos Fundamentos? Explique.**

# **GINÁSIO**

**Dia 17/03 – Ginásio**

**Conhecer as ginastas**

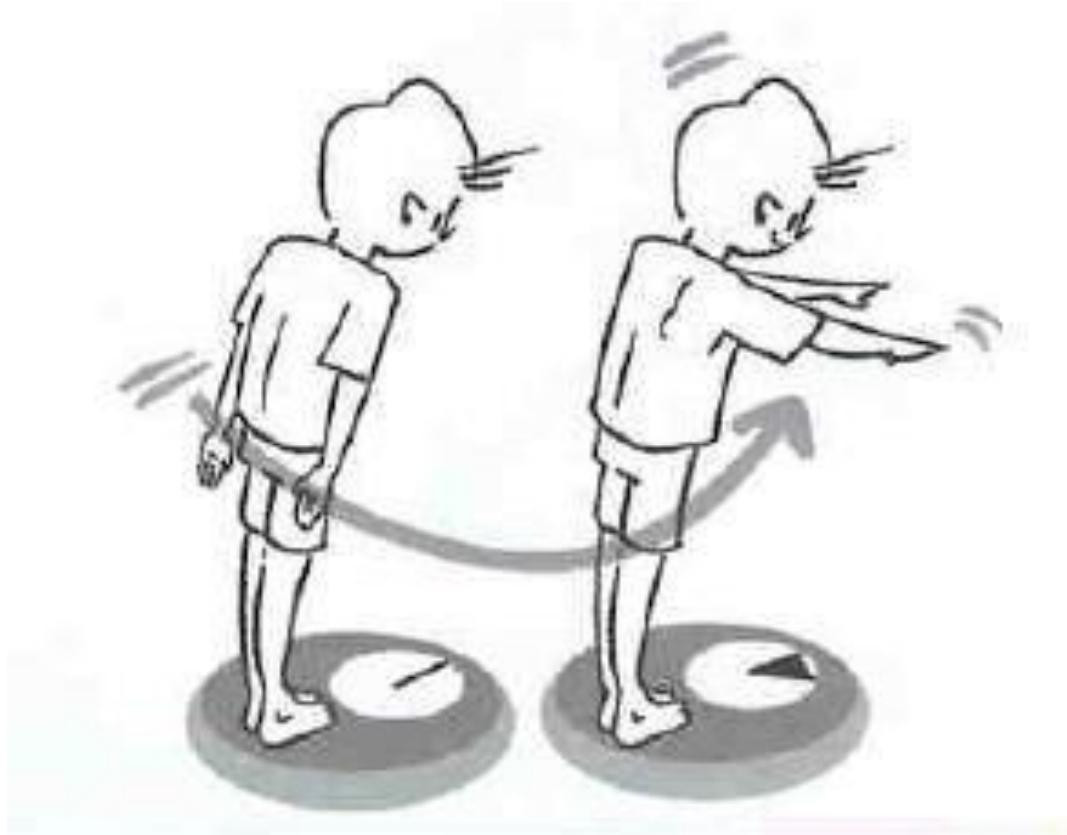
**Observar e identificar aparelhos oficiais e auxiliares**

**Observar e identificar: Fundamentos**

**Observar e analisar: Mecânica dos Fundamentos**



# TAREFA



The short answer is: Limbs that are **in contact** with the ground (or apparatus) exert a “**direct**” ACTION that results in an equal and opposite REACTION force ... (Newton’s 3rd Law)

But, the limbs that are **NOT in contact** with earth (or apparatus) also can do ACTIONS, that will have REACTIONS. These reactions are what I call **indirect** because they are not directly in contact.

When standing, **Arms up** (ACTION) = body moving downward (opposite, equal REACTION). This force can be seen if you stand on the weight scale. Thus, the downward force is indirectly the result of arms moving upwards. THAT downward force is added to the legs ACTION of legs pushing directly downward and you have a REACTION force made up of the leg push (direct) AND the arms raising (indirect)

# Mecânica do Salto

A técnica apropriada do Salto depende de três condições mecânicas:

Músculos potentes que impulsionam o salto

- Potência: força e velocidade
- Desenvolver força e velocidade dos músculos envolvidos

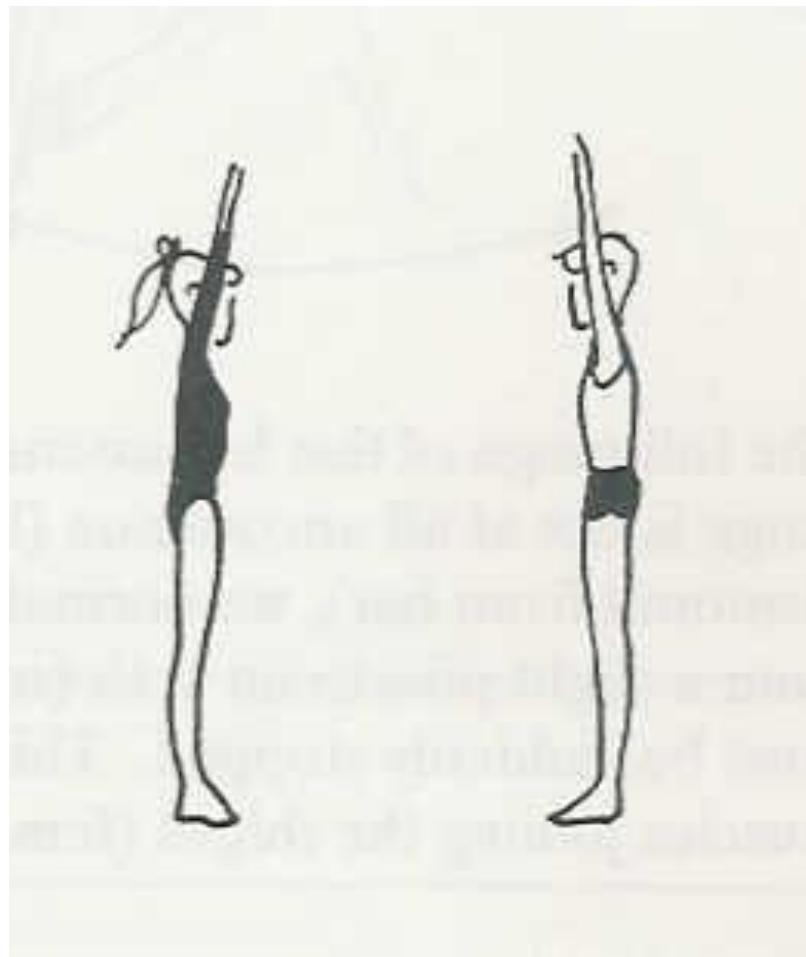
Corpo rígido

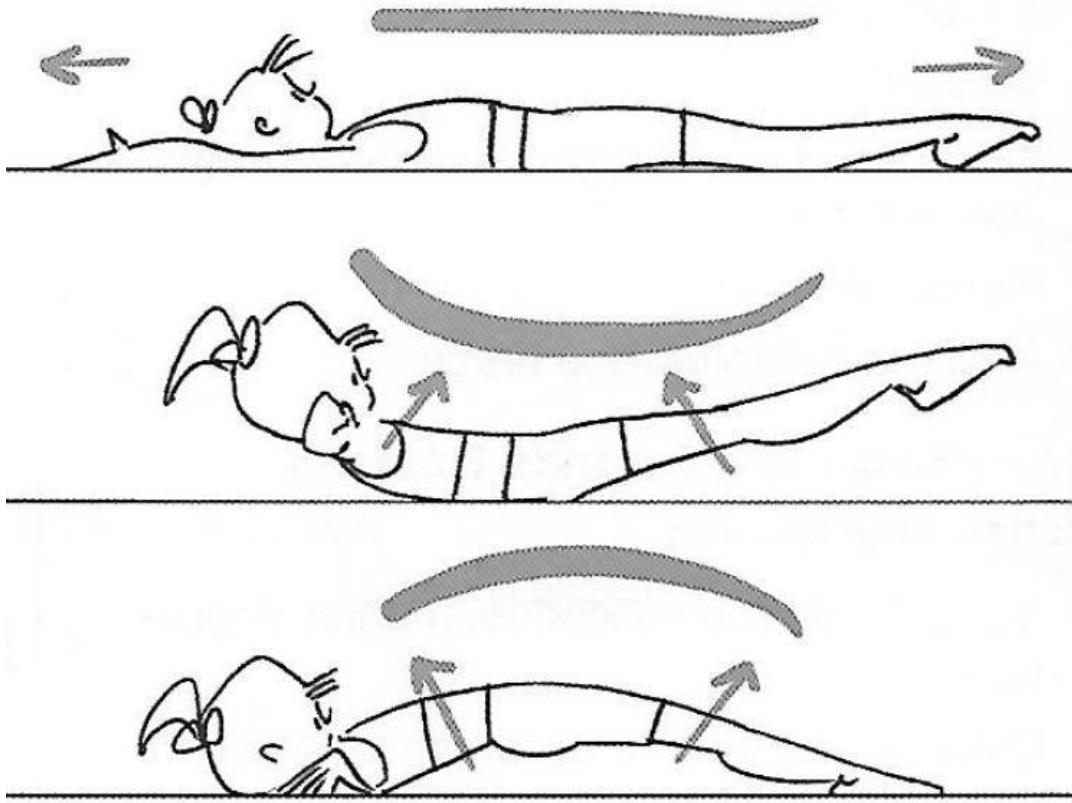
- A força gerada é utilizada para impulsionar o corpo
- Sem corpo rígido, a força é absorvida pelo corpo

Membros não impulsionadores para aumentar a força

- Membros que não estão em contato direto, auxiliam indiretamente na força

# Postura e Alinhamento corporal





(single ladies CORE) <https://www.youtube.com/watch?v=QlLIE9v4a-l>

(abs & core) <https://www.youtube.com/watch?v=szKrE4TnltM>

<https://www.usagym.org/pages/home/publications/technique/1996/8/strength.pdf>

## Duplo Twist Carpado

<https://videocatalog.com/ru/video/ex0Suj4w-x8>

<http://demotu.org/o-salto-duplo-twist-carpado-por-daiane-do-santos/>

## GA segundo Arthur Nory

<https://www.youtube.com/watch?v=W3uBUhXsCGY>

<https://www.youtube.com/watch?v=hioLPIPtjeg>

# **MADE IN USA**

[https://www.youtube.com/watch?v=x\\_zqx-YHAbU](https://www.youtube.com/watch?v=x_zqx-YHAbU)

## **Fazer pesquisa sobre competição, regras e avaliação na GA:**

Busca em material bibliográfico; sites oficiais da Confederação Brasileira de Ginástica e Federação Internacional de Ginástica; entrevista com profissionais e atletas; etc.

Pontos a pesquisar (em competições oficiais, Jogos Olímpicos):

- Tipos de competições
- Formação das equipes
- Critérios de classificação para as finais
- Provas masculinas e femininas
- Sequencia/Rodízio de apresentação nos aparelhos Masc e Fem
- Processo de premiação
- Formação da Banca de Arbitragem
- Regras gerais e critérios de avaliação (escolher um aparelho M e F)
  - Composição e cálculo da nota final
  - Número máximo de medalhas por atleta Masc e Fem