

# Preparation und Warm-up als Verletzungsprävention



# Die Visitenkarte des Coaches

- Häufig erster Kontakt zum Patienten, Sportler oder der Gruppe
- Gute Möglichkeit, intensiv auf den Zustand der Person/Gruppe einzuwirken
- Ziele:
  - Optimale Vorbereitung auf Reha/Training/Wettkampf (Aufwärmen und Aktivieren)
  - Einführung von Standards (Verhalten, Fähigkeiten, Stimmung)

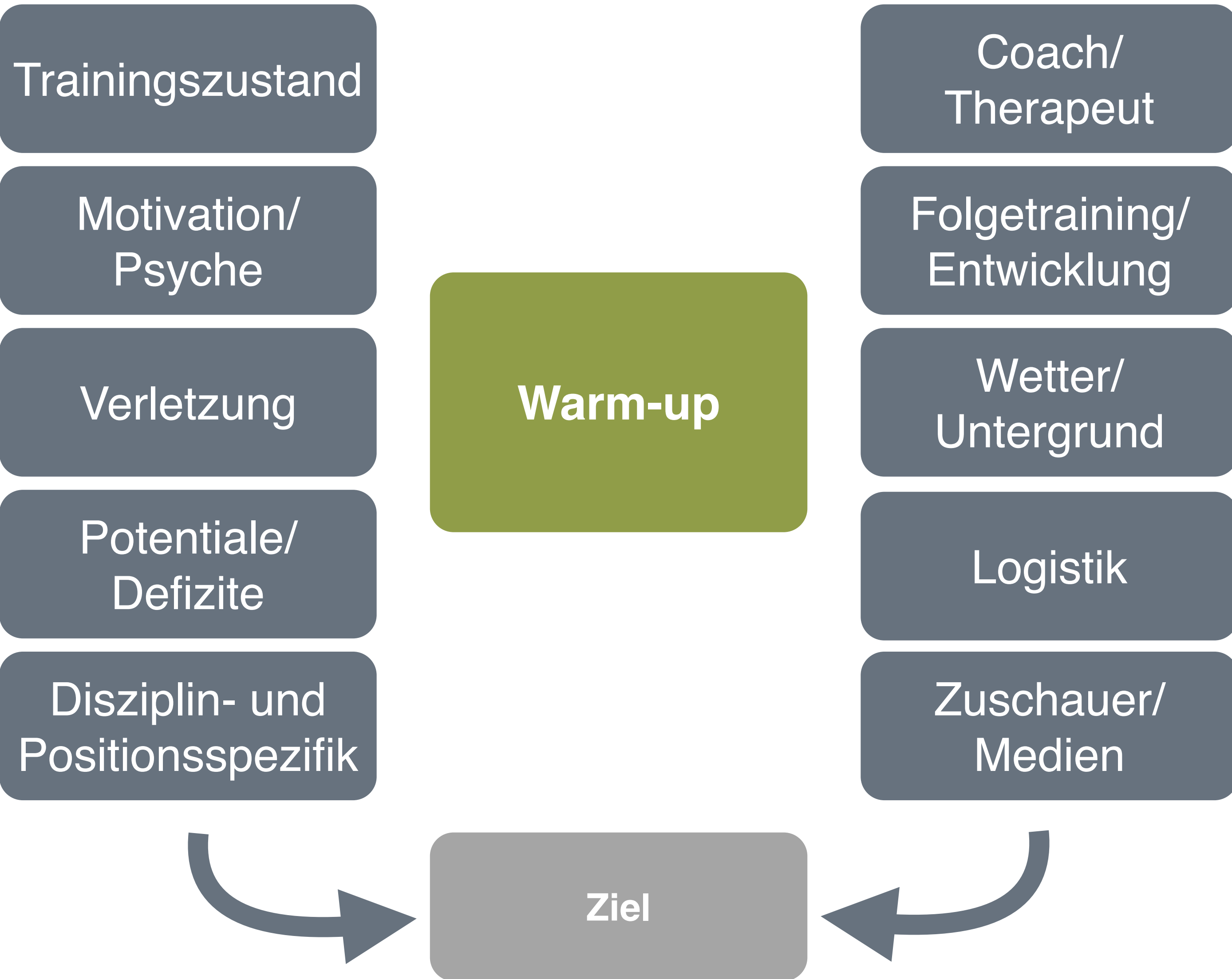
## Die Bedeutung des Warm-ups

„Wenn es das Ziel eines Warm-ups ist, die **Leistung zu maximieren**, dann sollten **Warm-up-Protokolle spezifisch** an die Bedürfnisse und Belastungen einer Sportart angepasst sein – und an die Athleten.“

## Die Bedeutung des Warm-ups

„Die Variablen athletischer Leistungsfähigkeit wie **Schnelligkeit und Kraft** sowie ihre Optimierung im Training und Wettkampf werden durch ein **angepasstes Warm-up gefördert.**“

# Einflussfaktoren



# Programme und Verletzungsprävention

## Effects of the performance level and the FIFA “11” injury prevention program on the injury rate in Italian male amateur soccer players

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H. GATTERER, G. RUEDL, M. FAULHABER, M. REGELE, M. BURTSCHER

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## A new injury prevention programme for children’s football – FIFA 11+ Kids – can improve motor performance: a cluster-randomised controlled trial

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# The 11+

## PART 1 RUNNING EXERCISES • 8 MINUTES

<p><b>1 RUNNING STRAIGHT AHEAD</b></p> <p>The cones are made up of 4 to 10 pairs of parallel cones, approx. 5-6 m apart. Two players start at the same time from the first pair of cones. Jog together all the way to the last pair of cones. On the way back, you can increase your speed progressively as you warm up. 2 sets</p>	<p><b>2 RUNNING HIP OUT</b></p> <p>Walk or jog slowly, stepping each pair of cones to your left and then to your right. Alternate between left and right legs at successive cones. 2 sets</p>	<p><b>3 RUNNING HIP IN</b></p> <p>Walk or jog slowly, stepping each pair of cones to lift your knee and reduce your hip width. Alternate between left and right legs at successive cones. 2 sets</p>
<p><b>4 RUNNING CIRCLING PARTNER</b></p> <p>Run forwards as a pair to the first set of cones. Shuffle sideways by 90 degrees to meet in the middle. Shuffle an entire circle around one other and then return back to the cone. Repeat for each pair of cones. Remember to stay on your toes and keep your centre of gravity low by bending your hips and knees. 2 sets</p>	<p><b>5 RUNNING SHOULDER CONTACT</b></p> <p>Run forwards in pairs to the first set of cones. Shuffle sideways by 90 degrees to meet in the middle. Shuffle sideways towards each other to make shoulder-to-shoulder contact. Repeat. Make sure you are both flat with your hips and knees bent. Do not let your knees buckle inwards. Make it a full jump and synchronize your timing with your partner as you jump and back. 2 sets</p>	<p><b>6 RUNNING QUICK FORWARDS &amp; BACKWARDS</b></p> <p>As a pair, run quickly to the second set of cones then run backwards quickly to the first pair of cones keeping your hip and knee slightly bent. Repeat the drill, running first forwards and then back backwards. Remember to take small, quick steps. 2 sets</p>

## PART 2 STRENGTH • PLYOMETRICS • BALANCE • 10 MINUTES

LEVEL 1			LEVEL 2			LEVEL 3		
<p><b>7 THE BENCH STATIC</b></p> <p>Starting position: Lie on your front, supporting yourself on your forearms and feet. Your elbows should be directly under your shoulders.</p> <p>Exercise: Lift your body up, supported on your forearms, and pull your stomach in. Hold for 30 sec. Your body should be in a straight line. Try not to sway or arch your back. 3 sets</p>	<p><b>7 THE BENCH ALTERNATE LEGS</b></p> <p>Starting position: Lie on your front, supporting yourself on your forearms and feet. Your elbows should be directly under your shoulders.</p> <p>Exercise: Lift your body up, supported on your forearms, and pull your stomach in. Lift each leg in turn, holding for a count of 2 sec. Continue for 40-60 sec. Your body should be in a straight line. Try not to sway or arch your back. 3 sets</p>	<p><b>7 THE BENCH ONE LEG LIFT AND HOLD</b></p> <p>Starting position: Lie on your front, supporting yourself on your forearms and feet. Your elbows should be directly under your shoulders. Bend one leg up, supported on your forearms, and pull your stomach in. Lift one leg about 15-15 cm off the ground, and hold the position for 20-30 sec. Your body should be straight. Do not let your opposite hip dip down and do not sway or arch your lower back. Take a short break, change side and repeat. 3 sets</p>						
<p><b>8 SIDEWAYS BENCH STATIC</b></p> <p>Starting position: Lie on your side with the knee of your lowermost leg to 90 degrees. Support your upper body resting on your forearm and knee. The elbow of your supporting arm should be directly under your shoulder. Bend the leg of your uppermost leg until your shoulder, hip and knee are in a straight line. Hold the position for 20-30 sec. Take a short break, change side and repeat. 3 sets on each side</p>	<p><b>8 SIDEWAYS BENCH RAISE &amp; LOWER HIP</b></p> <p>Starting position: Lie on your side with both legs straight. Lean on your forearm and the side of your foot so that your body is in a straight line from shoulder to foot. The elbow of your supporting arm should be directly beneath your shoulder. Exercise: Lower your hip to the ground and stand back up again. Repeat for 20-30 sec. Take a short break, change side and repeat. 3 sets on each side</p>	<p><b>8 SIDEWAYS BENCH WITH LEG LIFT</b></p> <p>Starting position: Lie on your side with both legs straight. Lean on your forearm and the side of your foot so that your body is in a straight line from shoulder to foot. The elbow of your supporting arm should be directly beneath your shoulder. Exercise: Lift your uppermost leg up and slowly lower it down again. Repeat for 20-30 sec. Take a short break, change side and repeat. 3 sets on each side</p>						
<p><b>9 HAMSTRINGS BEGINNER</b></p> <p>Starting position: Rest on a soft surface. Ask your partner to hold your ankle down.</p> <p>Exercise: Your body should be completely straight from the shoulder to the knee throughout the exercise. Lean forward as far as you can, controlling the movement with your hamstring and your gluteal muscles. When you can no longer hold the position, gently take your weight on your hands, falling into a push-up position. Complete a minimum of 2-5 repetitions and/or 60 sec. 1 set</p>	<p><b>9 HAMSTRINGS INTERMEDIATE</b></p> <p>Starting position: Rest on a soft surface. Ask your partner to hold your ankle down.</p> <p>Exercise: Your body should be completely straight from the shoulder to the knee throughout the exercise. Lean forward as far as you can, controlling the movement with your hamstring and your gluteal muscles. When you can no longer hold the position, gently take your weight on your hands, falling into a push-up position. Complete a minimum of 7-10 repetitions and/or 60 sec. 1 set</p>	<p><b>9 HAMSTRINGS ADVANCED</b></p> <p>Starting position: Rest on a soft surface. Ask your partner to hold your ankle down.</p> <p>Exercise: Your body should be completely straight from the shoulder to the knee throughout the exercise. Lean forward as far as you can, controlling the movement with your hamstring and your gluteal muscles. When you can no longer hold the position, gently take your weight on your hands, falling into a push-up position. Complete a minimum of 12-15 repetitions and/or 60 sec. 1 set</p>						
<p><b>10 SINGLE-LEG STANCE HOLD THE BALL</b></p> <p>Starting position: Stand on one leg.</p> <p>Exercise: Balance on one leg while holding the ball with both hands. Keep your body weight on the ball of your foot. Remember: try not to let your knees buckle inwards. Hold for 30 sec. Change legs and repeat. The exercise can be made more difficult by passing the ball around your waist and/or under your other knee. 2 sets</p>	<p><b>10 SINGLE-LEG STANCE THROWING BALL WITH PARTNER</b></p> <p>Starting position: Stand 2-3 m apart from your partner, with each of you standing on one leg.</p> <p>Exercise: Keeping your balance, and with your stomach held in, throw the ball to one another. Keep your weight on the ball of your foot. Remember: keep your knee just slightly bent and try to let it buckle inwards. Keep going for 30 sec. Change legs and repeat. 2 sets</p>	<p><b>10 SINGLE-LEG STANCE TEST YOUR PARTNER</b></p> <p>Starting position: Stand on one leg opposite your partner and at arm's length apart.</p> <p>Exercise: While you both try to keep your balance, each of you in turn has to push the other off balance in different directions. Try to keep your weight on the ball of your foot and prevent your knee from buckling inwards. Continue for 30 sec. Change legs and repeat. 2 sets</p>						
<p><b>11 SQUATS WITH TOE RAISE</b></p> <p>Starting position: Stand with your feet hip-width apart. Place your hands on your hips if you like. Exercise: Imagine that you are about to sit down on a chair. Perform squats by bending your hips and knees to 90 degrees. Do not let your knees buckle inwards. Stand slowly then sit again. When you can no longer hold the position, stand up on your toes then slowly lower down again. Repeat the exercise for 30 sec. 2 sets</p>	<p><b>11 SQUATS WALKING LUNGES</b></p> <p>Starting position: Stand with your feet at hip-width apart. Place your hands on your hips if you like. Exercise: Lunge forward slowly at 20 cm pace. As you lunge, bend your leading leg until your hip and knee are flexed to 90 degrees. Do not let your knee buckle inwards. Try to keep your upper body and hip steady. Lunge your way across the pitch/approx. 10 times on each leg and then jog back. 2 sets</p>	<p><b>11 SQUATS ONE-LEG SQUATS</b></p> <p>Starting position: Stand on one leg, loosely holding onto your partner.</p> <p>Exercise: Slowly lower your knee as far as you can, concentrating on preventing the knee from buckling inwards. Stand your knee slowly then sit down in a squatting position. Repeat the exercise 10 times on each leg. 2 sets</p>						
<p><b>12 JUMPING VERTICAL JUMPS</b></p> <p>Starting position: Stand with your feet hip-width apart. Place your hands on your hips if you like.</p> <p>Exercise: Imagine that you are about to sit down on a chair. Bend your knee, then jump up as high as you can. Do not let your knees buckle inwards. Land softly on the balls of your feet with your hips and knees slightly bent. Repeat the exercise for 30 sec. 2 sets</p>	<p><b>12 JUMPING LATERAL JUMPS</b></p> <p>Starting position: Stand on one leg with your upper body bent slightly forward from the waist, with knees and hips slightly bent.</p> <p>Exercise: Jump approx. 1 m sideways from the supporting leg on to the free leg. Land gently on the ball of your foot. Bend your hip and knee slightly as you land and do not let your knee buckle inwards. Maintain your balance with each jump. Repeat the exercise for 30 sec. 2 sets</p>	<p><b>12 JUMPING BOX JUMPS</b></p> <p>Starting position: Stand with your feet hip-width apart. Imagine that there is a cross marked on the ground and you are standing in the middle of it.</p> <p>Exercise: Alternate between jumping forwards and backwards, from side to side, and diagonally across the cross. Jump as quickly and explosively as possible. Your knees and hips should be slightly bent. Land softly on the balls of your feet. Do not let your knees buckle inwards. Repeat the exercise for 30 sec. 2 sets</p>						

## PART 3 RUNNING EXERCISES • 2 MINUTES

<p><b>13 RUNNING ACROSS THE PITCH</b></p> <p>Run across the pitch, from one side to the other, at 75-90% maximum pace. 2 sets</p>	<p><b>14 RUNNING BOUNDING</b></p> <p>Run with high bounding steps with a high knee lift. Landing gently on the ball of your foot. Use an outstretched arm swing for each step. Jog back to your starting position, then jog back to recover. 2 sets</p>	<p><b>15 RUNNING PLANT &amp; CUT</b></p> <p>Jog 4-5 steps, then plant on the middle leg and cut to change direction. A zigzag line is drawn on the grass. Use an outstretched arm swing for each step. Jog back to your starting position, then jog back to recover. 2 sets</p>
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KNEE POSITION CORRECT



KNEE POSITION INCORRECT



## EXERCISE 1 JOG & LOOK AT THE COACH (TO STOP)

- 3x 5 stop commands
- 3x 5 stop commands
- 3x 5 stop commands
- 3x 5 stop commands

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## EXERCISE 2 SKATING HOP

- 2x 10 hops (5 on each leg)
- 2x 10 hops (5 on each leg)
- 2x 10 hops (5 on each leg)
- 2x 10 hops (5 on each leg)
- 2x 10 hops (5 on each leg)

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## EXERCISE 3 ONE LEG STANCE

- 1x right/left and 5 passes per player
- 1x right/left and 5 passes per player
- 1x right/left and 5 passes per player
- 1x right/left and 5 passes per player
- 1x right/left for ca. 20 seconds

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## EXERCISE 4 PUSH UP

- 2x, until each kid rolls 1x the ball (max. 8 kids)
- 3x 15 seconds
- 3x 15 seconds
- 3x 15 seconds
- 3x 10 seconds

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## EXERCISE 5 ONE LEG HOPS

- 2x, 5 hops on right leg and 5 hops on left leg
- 2x, 5 hops on right leg and 5 hops on left leg
- 2x, 5 hops on right leg and 5 hops on left leg
- 2x, 5 hops on right leg and 5 hops on left leg
- 2x, 5 hops on right leg and 5 hops on left leg

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## EXERCISE 6 SPIDERMAN

- 3x 15 seconds
- 3x 15 seconds
- 3x over 5-10 meters
- 3x over 5-10 meters
- 3x over 5-7 meters

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## EXERCISE 7 ROLL OVER

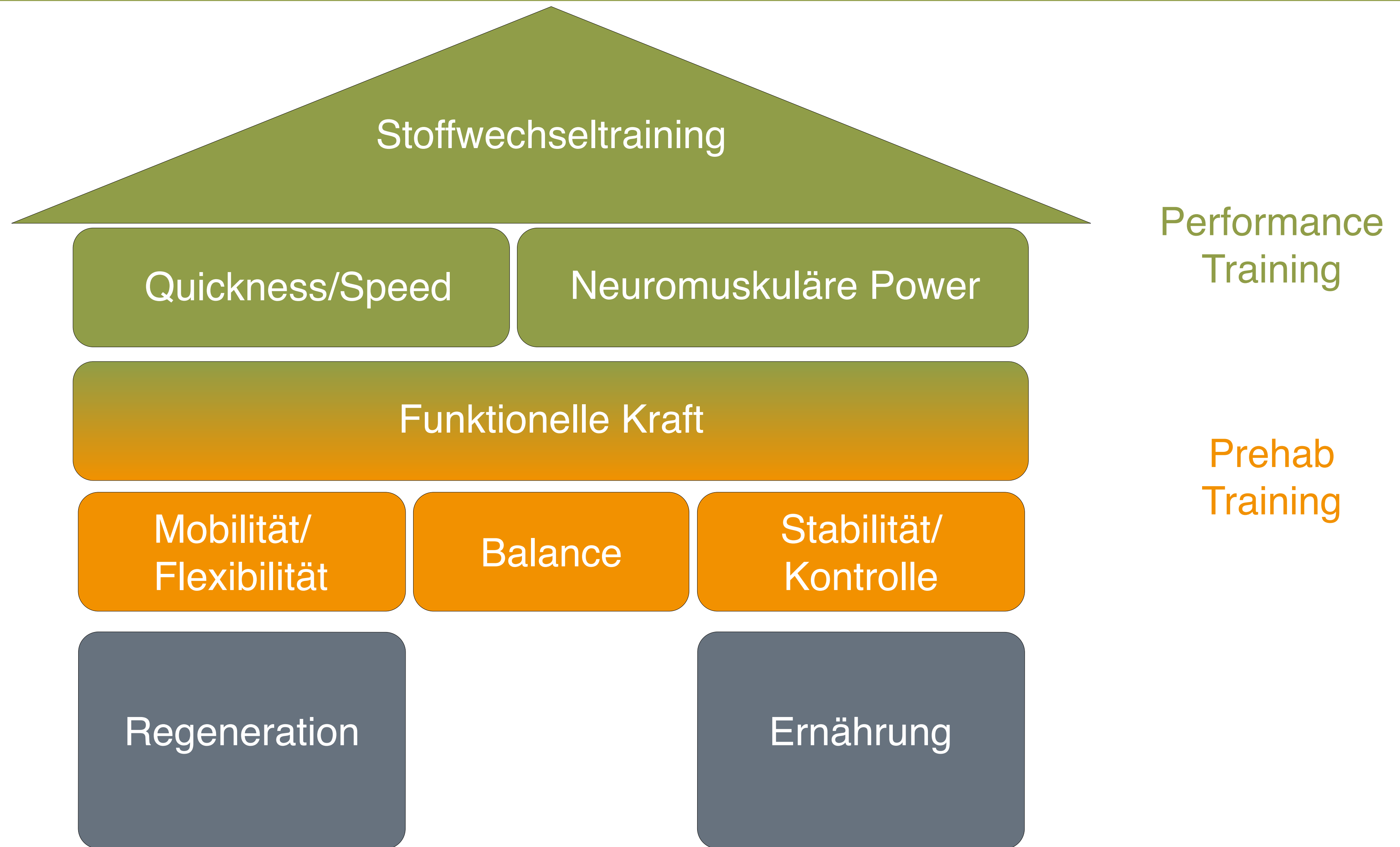
- 5-7x per side
- 5-7x per side
- 5-7x per side
- 5-7x per side
- 5-7x per side

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# FIFA 11+ KIDS



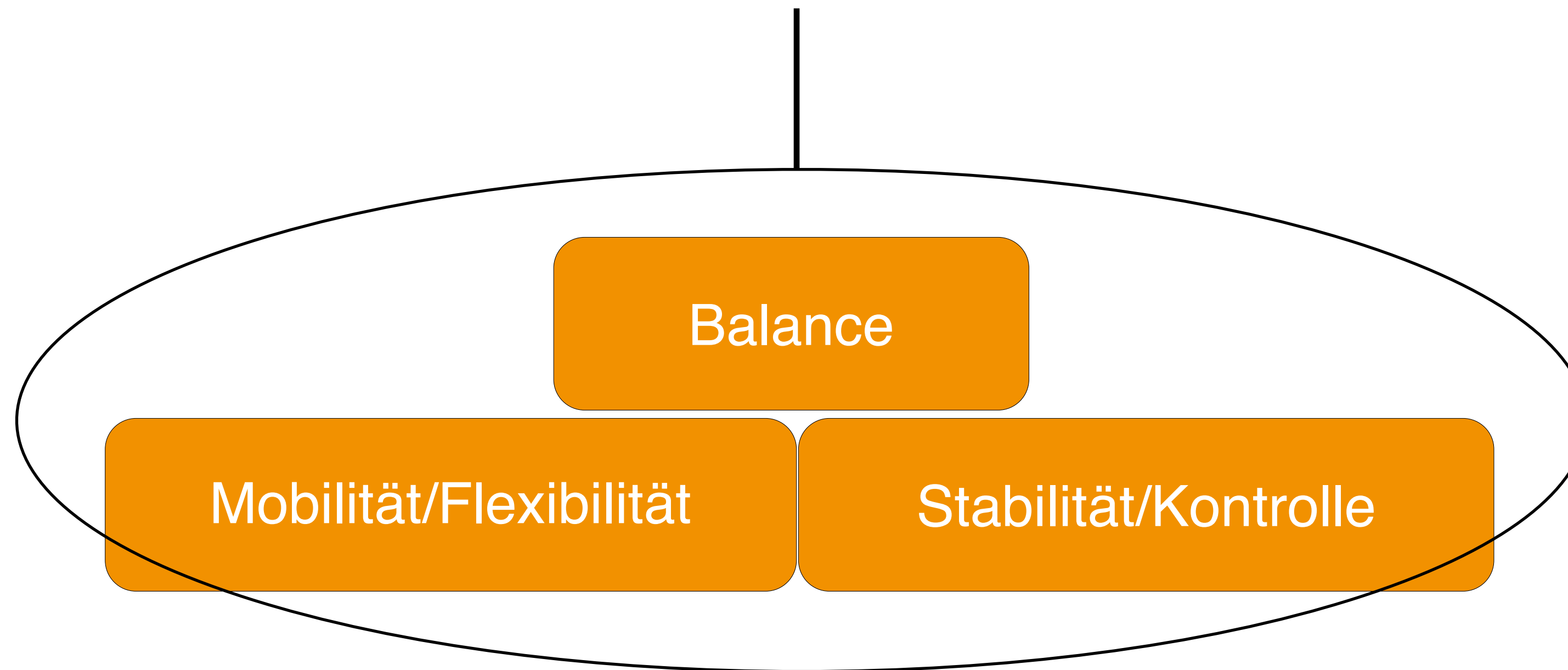
# Warm-up und Prehab – Einordnung





# Warm-up und Prehab – Einordnung

Prehab Exercise = Warm Up



Das Warm Up wird zum Training und  
das Training zum Warm Up.

# Warm-up und Prehab – Einordnung

Warm Up  
vorbereiten  
aktivieren  
korrigieren

Funktionelle Kraft

Mobilität/Flexibilität

Stabilität/Kontrolle

Balance

- Rumpfkraft
- Beine, ziehen
- Beine, drücken
- Oberkörper, drücken
- Oberkörper, ziehen
- Hybrid-Übungen

# Warm-up

## Ziele

Mobilität/Flexibilität

Stabilität/Kontrolle

Balance

Kardiopulmonal

## Inhalte

Isolierte Mobilisierung

Isolierte Aktivierung

Dynamische  
Beweglichkeit /  
Movement Preps

Lauf ABC

Drills

# Inhalte

Mobilisierungen

Aktivierungen  
(Stabis)

360° Routine

Korrigierende  
Übungen

**Warm-up**

Disziplin- und  
Positionsspezifik

Dynamische  
Beweglichkeit/  
Movement Preps

Lauf ABC

Drills

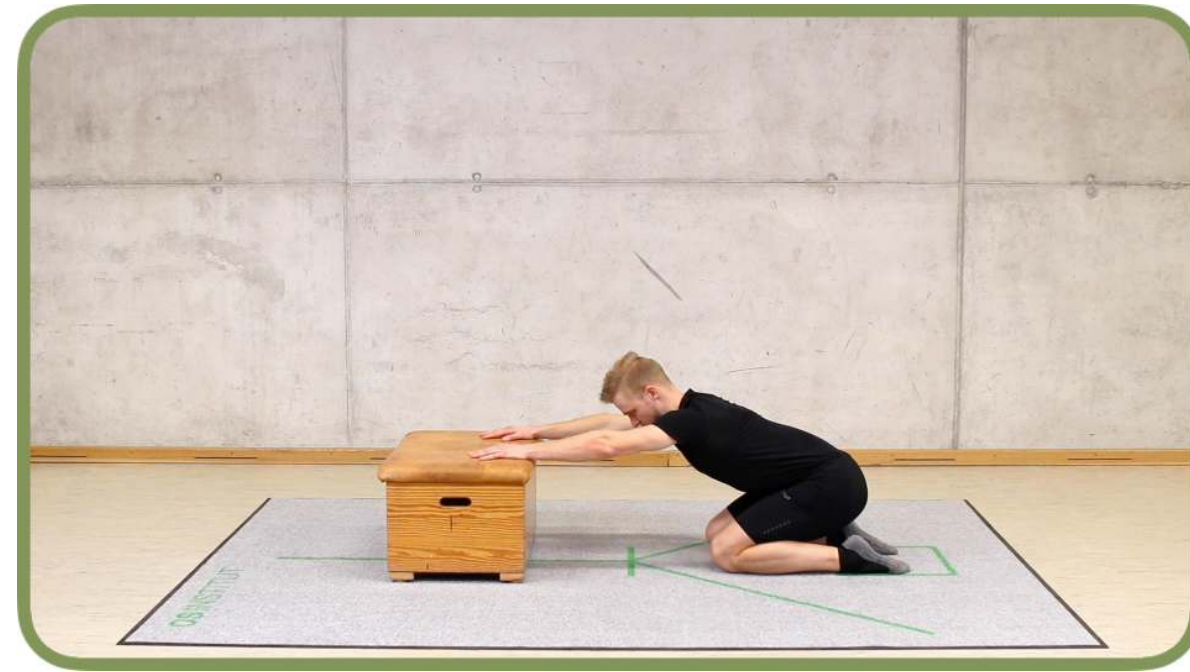
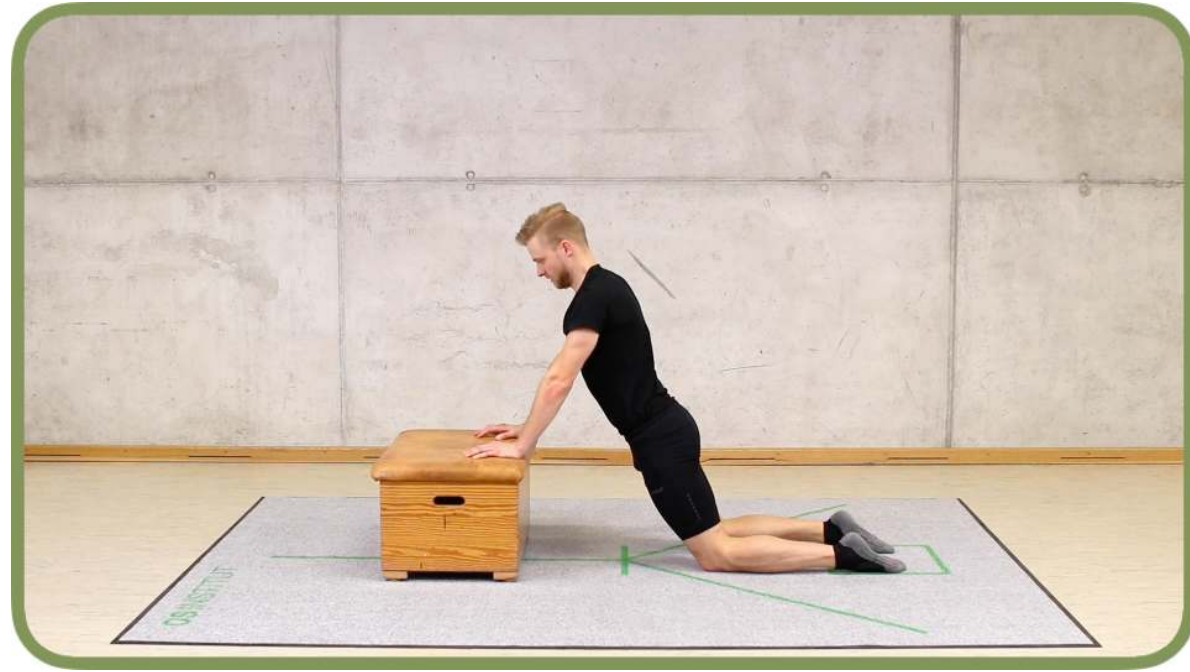
## Zusammenfassung

Das Warm-up und die Preparation sollen auf eine spezifische Belastung oder Training optimal vorbereiten. Unter der Berücksichtigung der limitierenden Faktoren werden Übungen zu diesem Zweck ausgesucht und die Dauer des Warm-ups sinnvoll angepasst.

# Prehab Exercises – Mobility (Kniegelenk)



## Mobilisation In Knieflexion



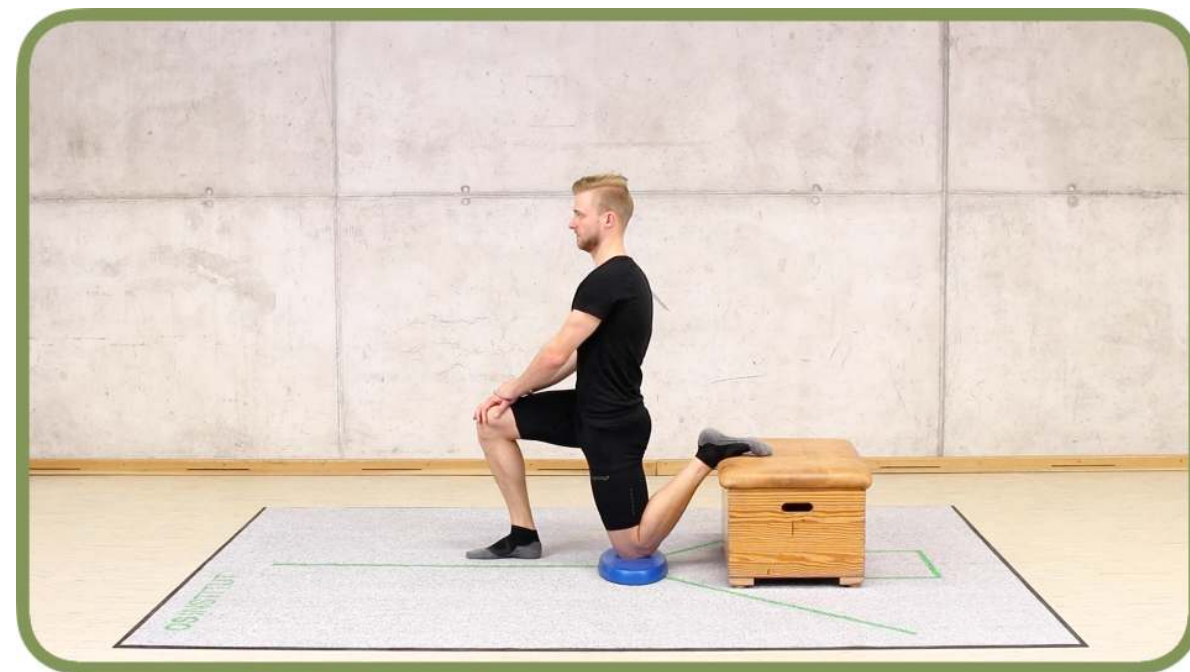
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## Couch Stretch



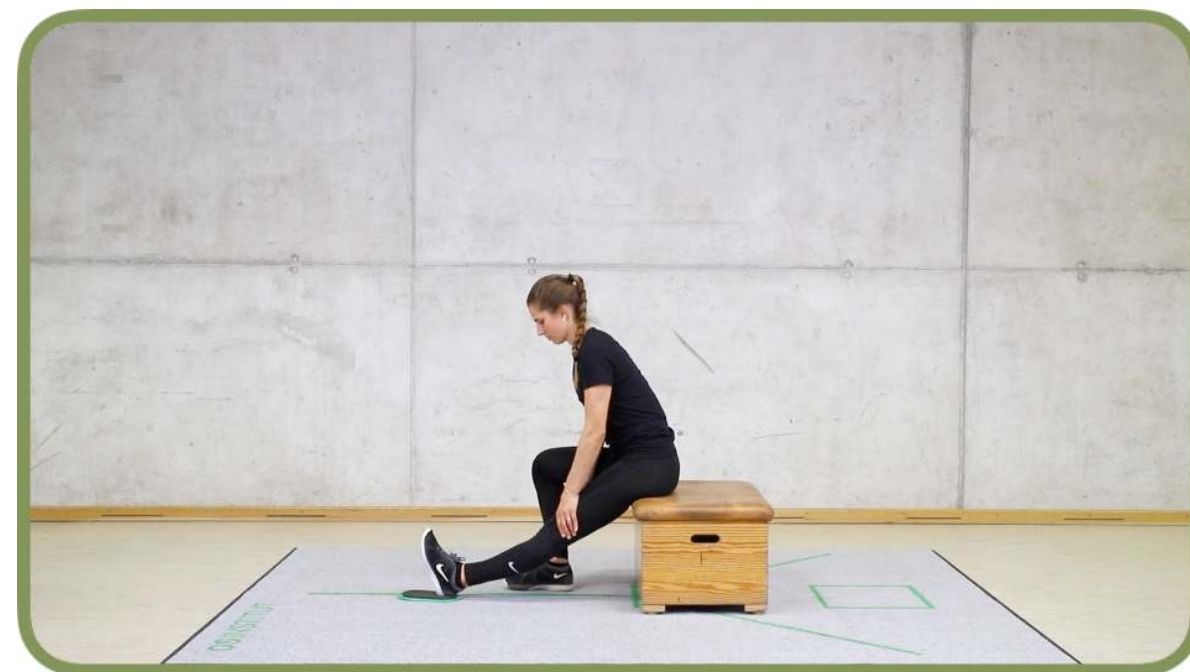
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## Mc Kenzie Knieextension



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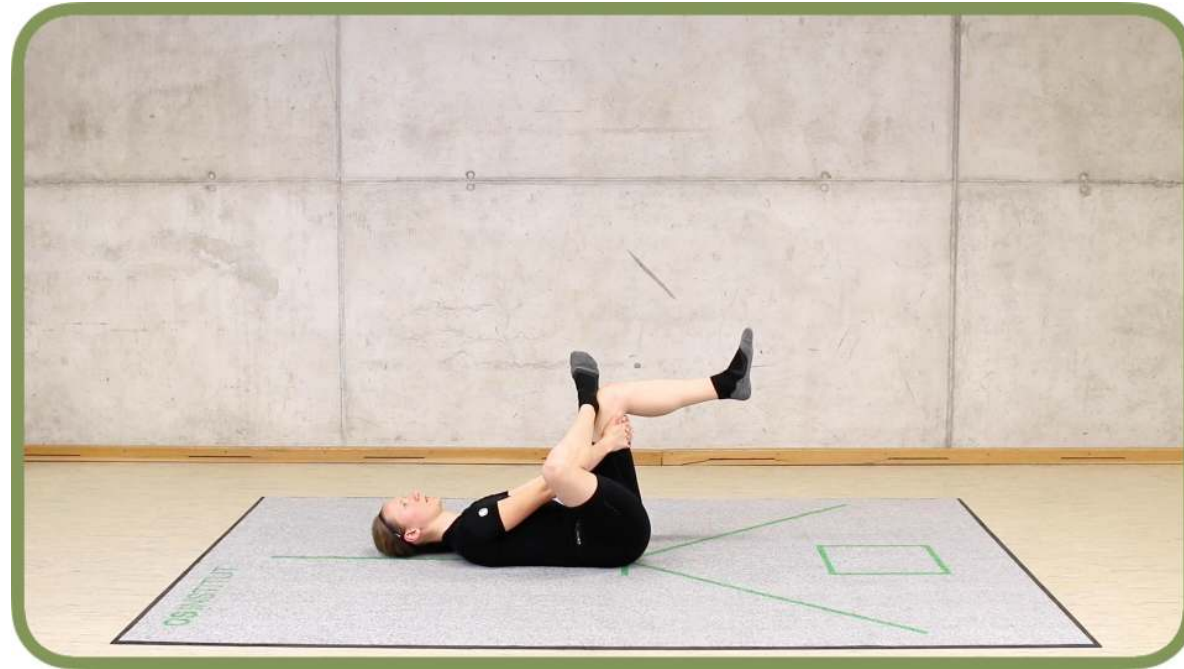
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# Prehab Exercises – Mobility (Hüftgelenk)



## Piriformis Stretch



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## Frog With Pelvic Tilt



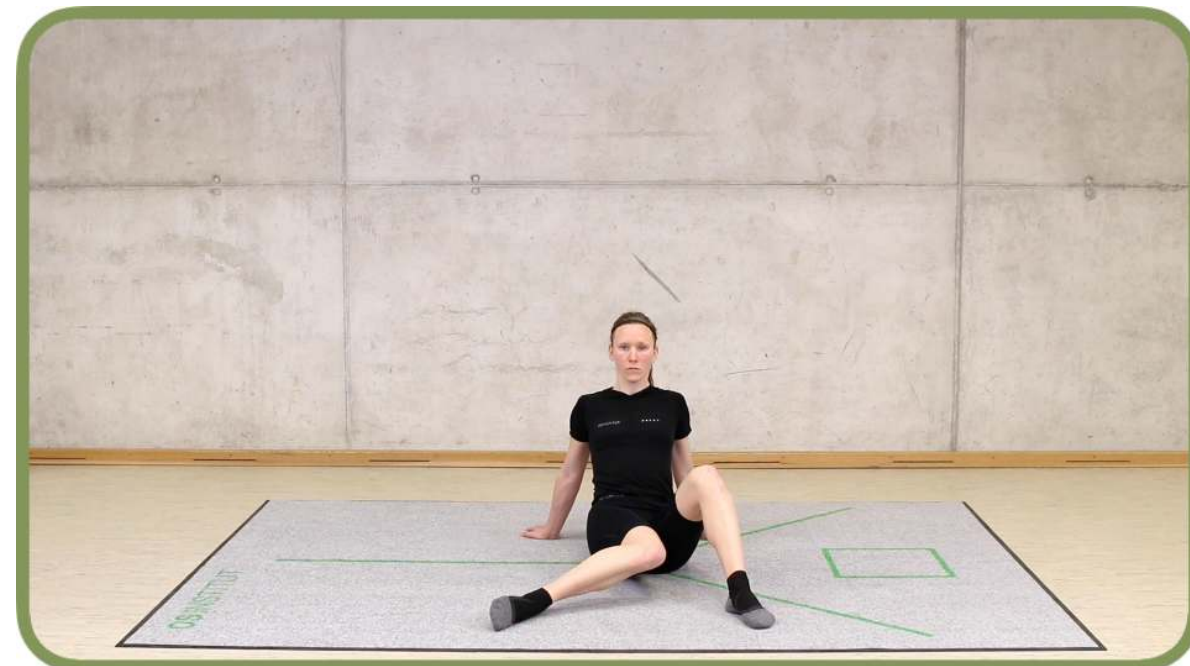
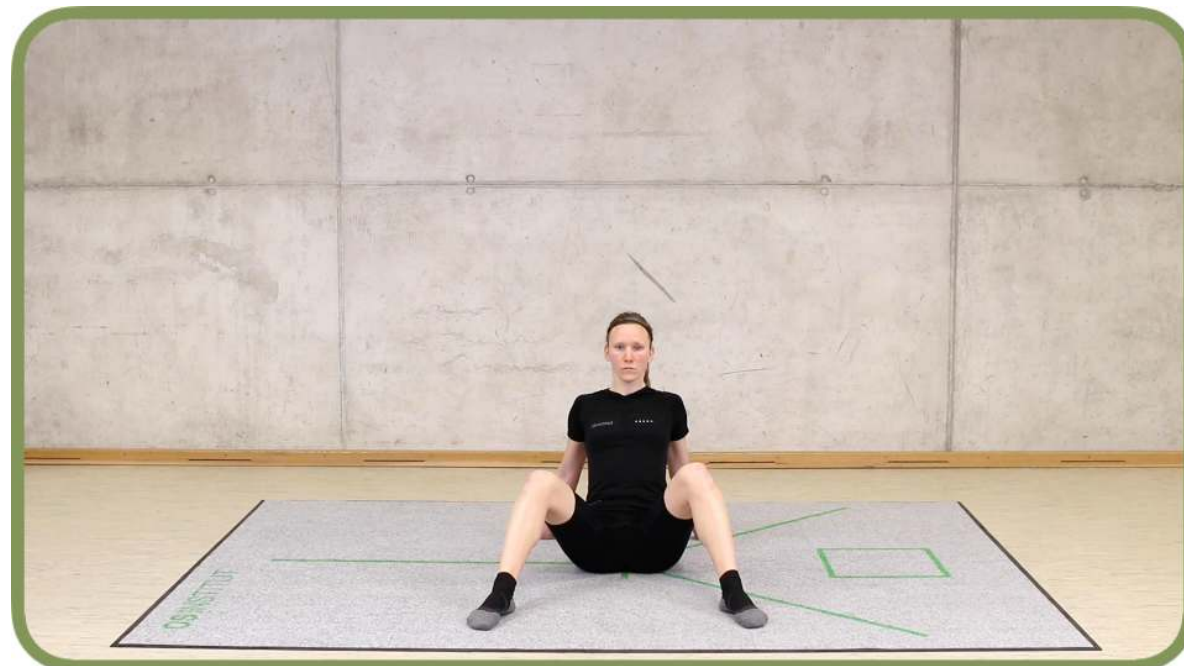
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## Mobilisation In Hüftinnenrotation



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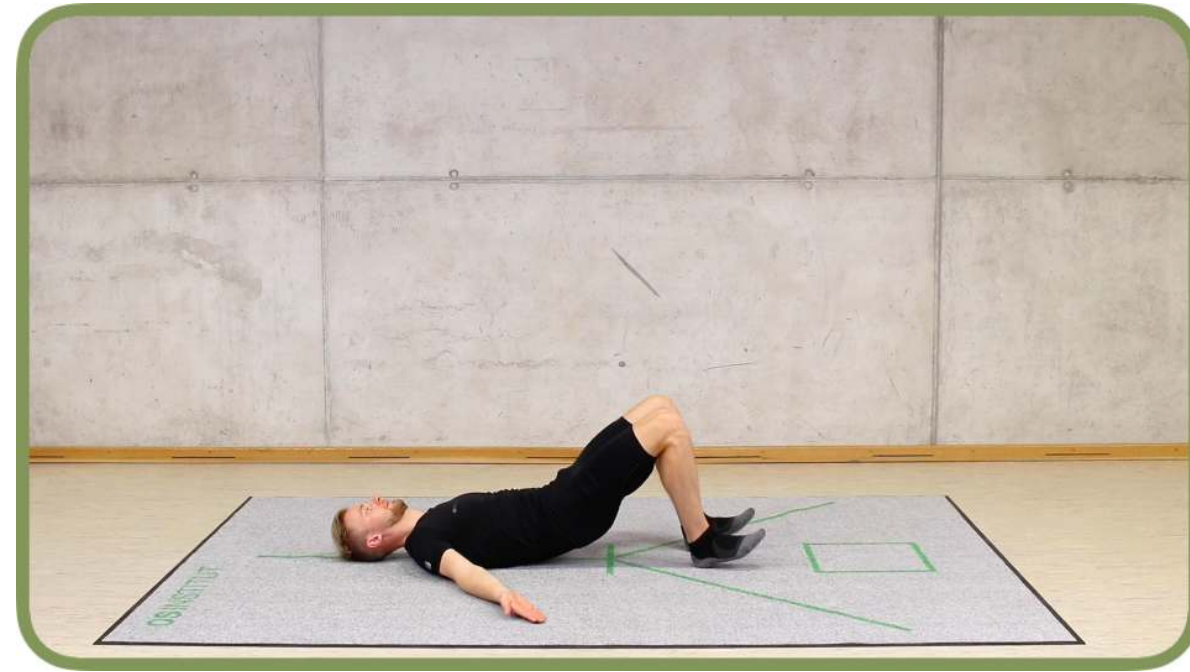
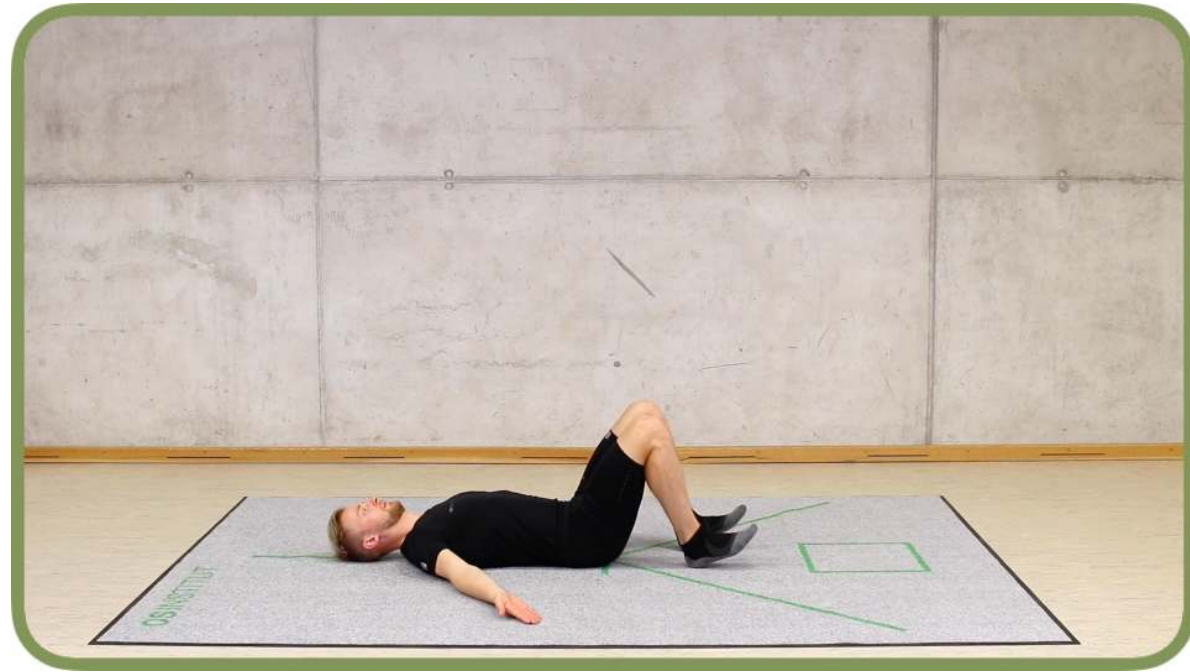
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# Prehab Exercises – Activation / Motor Control (360° Routine)



## Bridging segmental



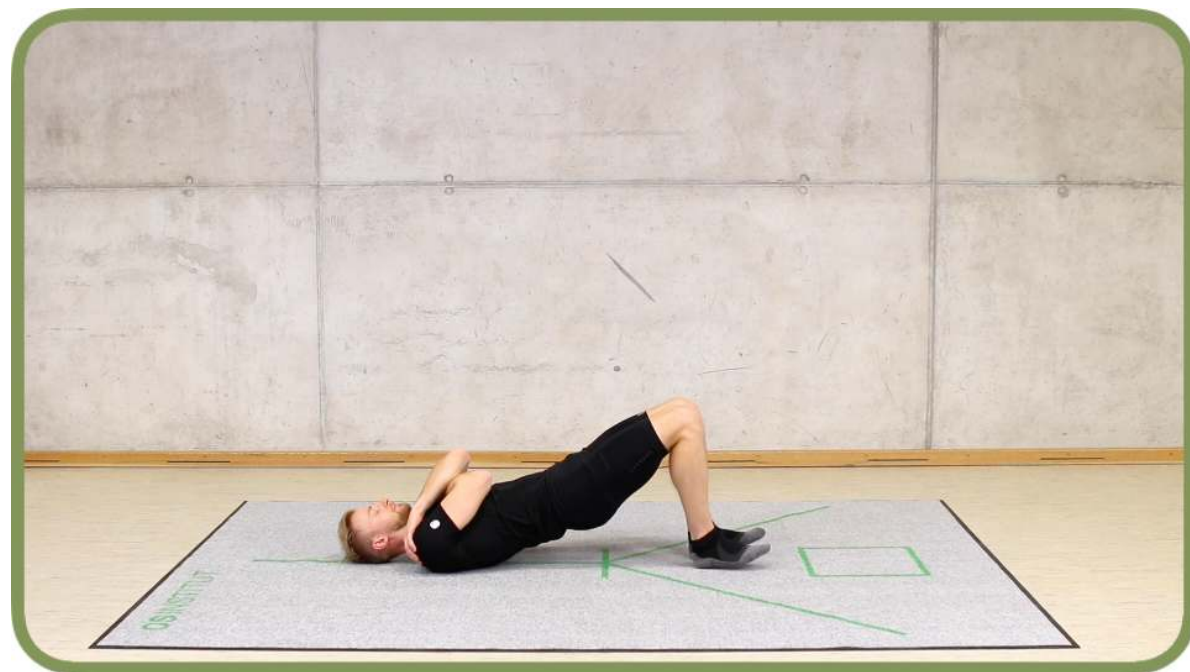
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## Bridging mit Lastwechsel



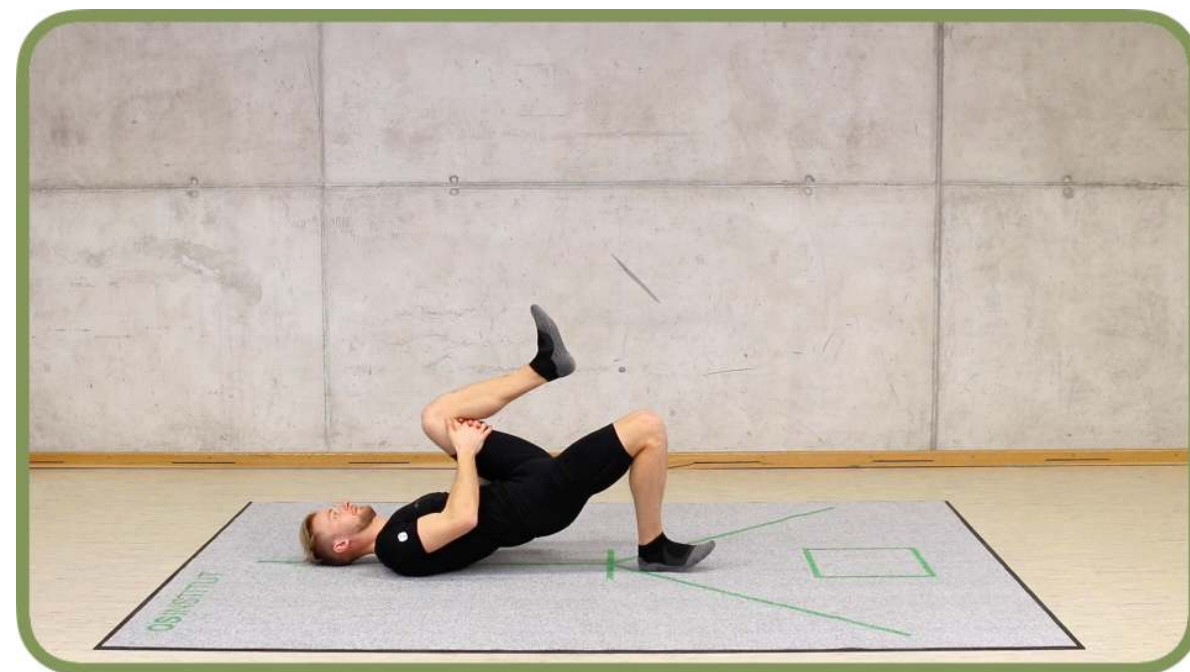
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## Cook Bridge



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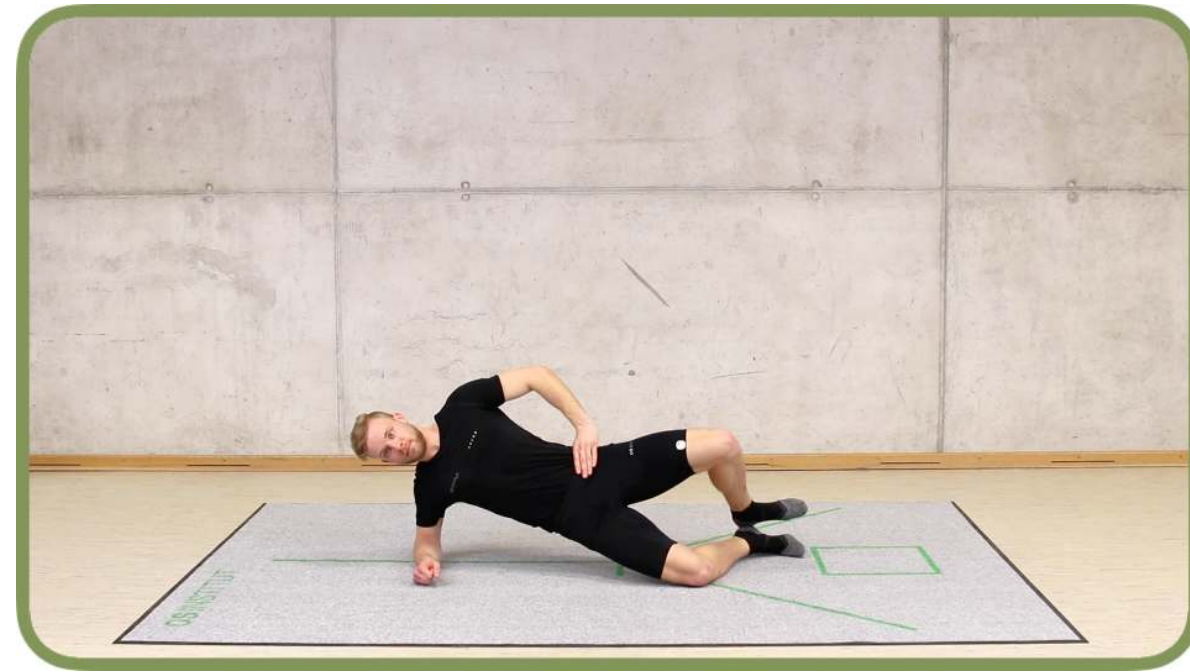
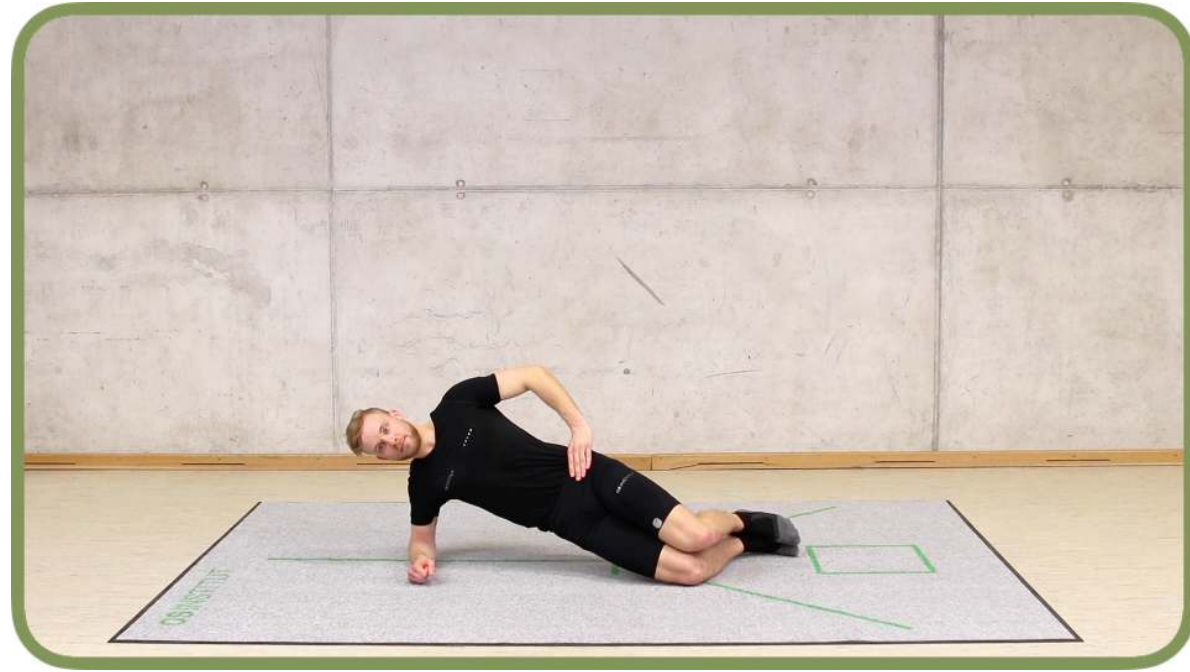
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# Prehab Exercises – Activation / Motor Control (360° Routine)



## Side Plank Clamshell



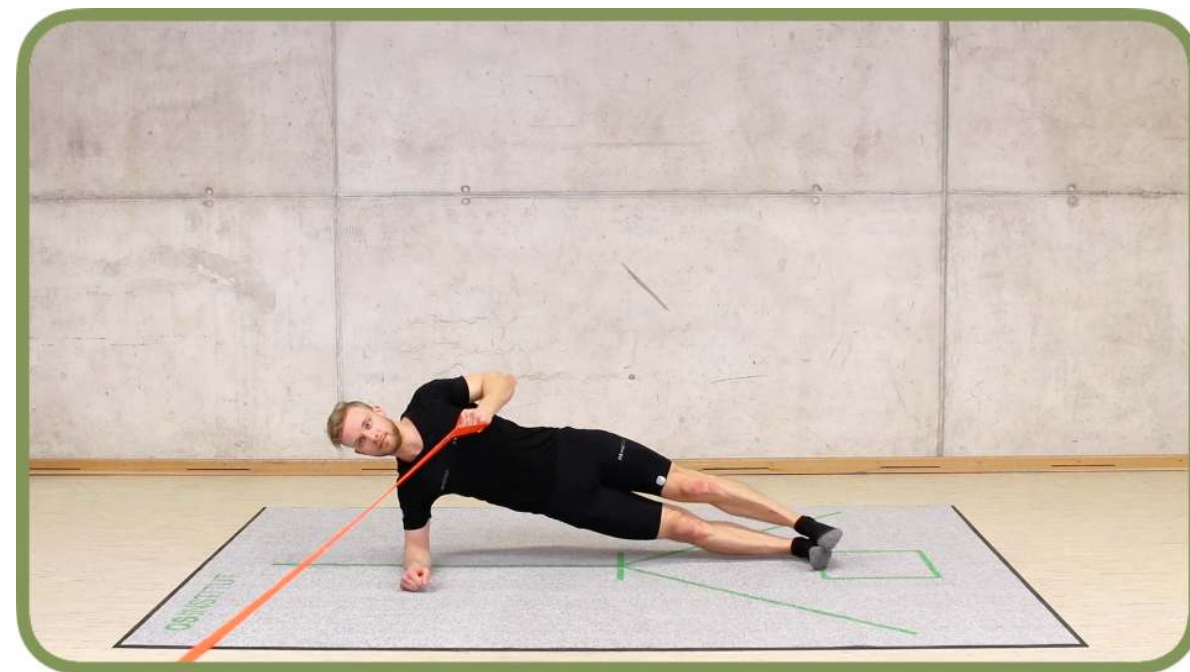
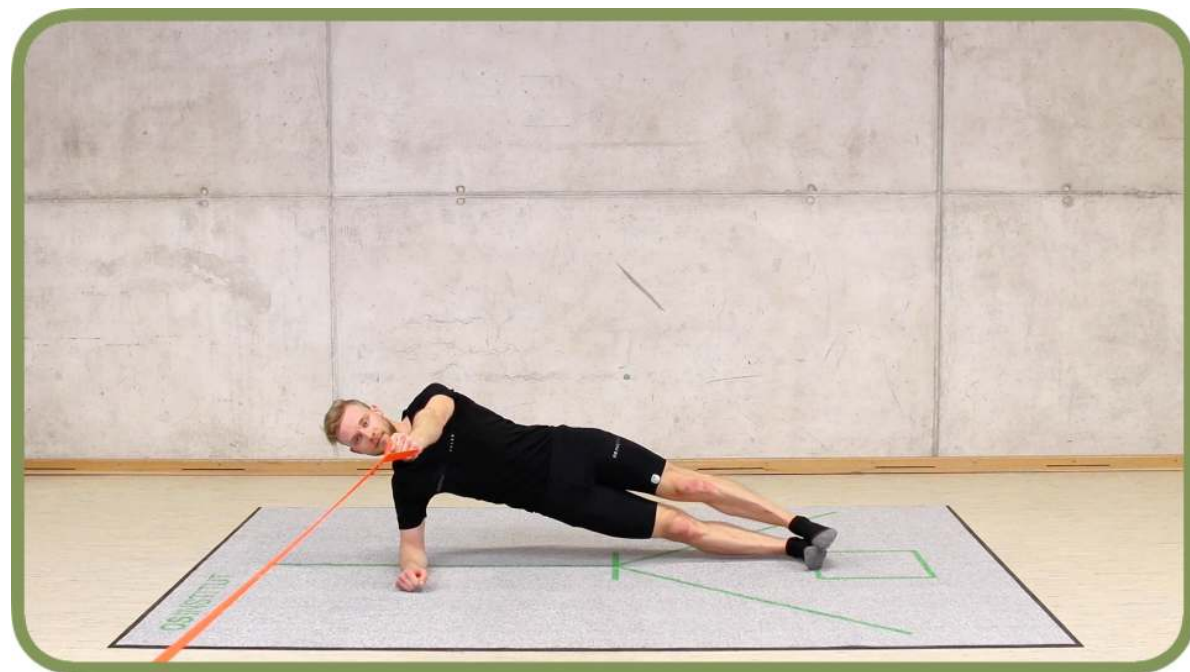
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## Side Plank Row



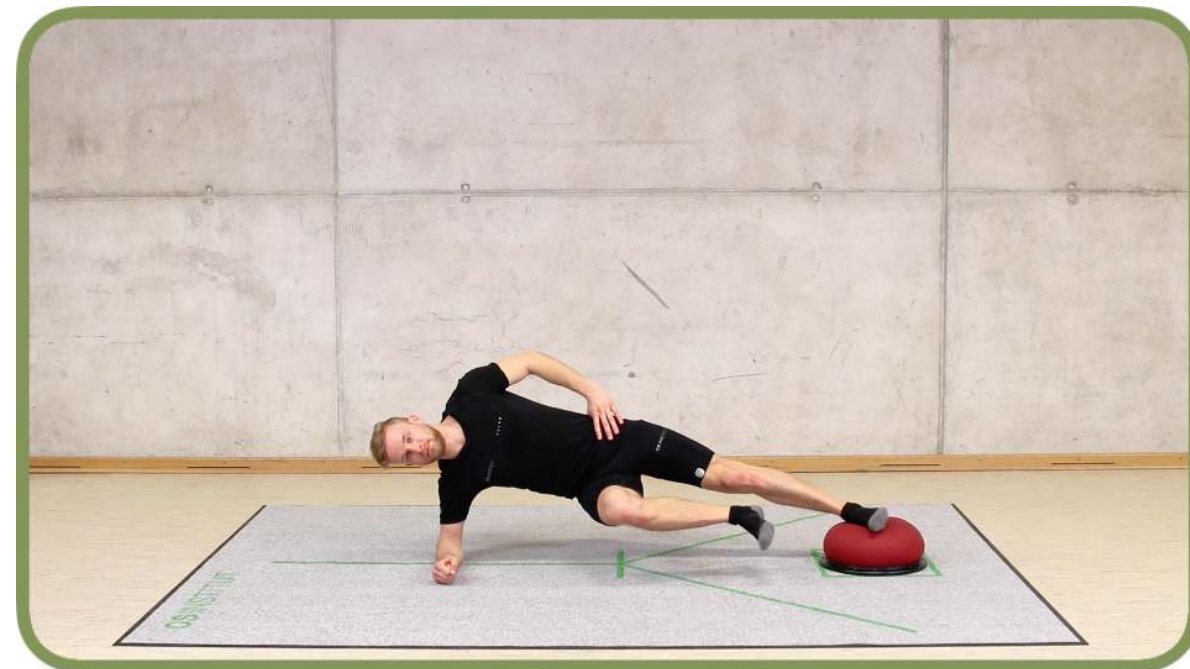
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## Medial Power Line auf Jumper



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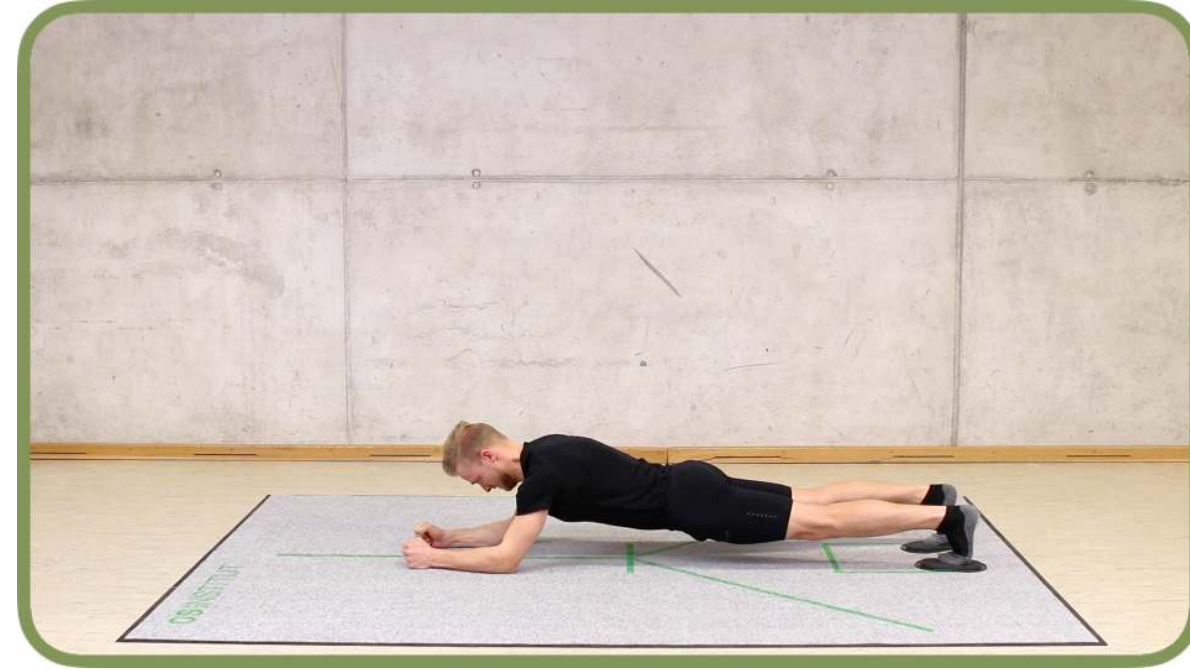
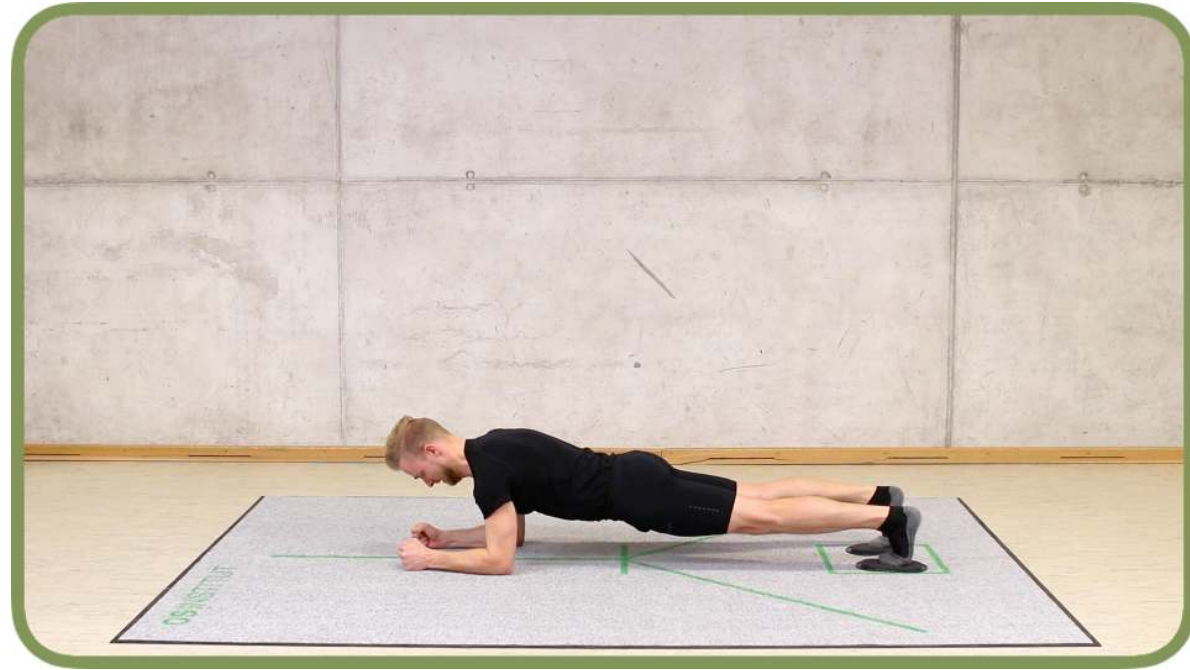
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# Prehab Exercises – Activation / Motor Control (360° Routine)



## Body Saw Backward Slide



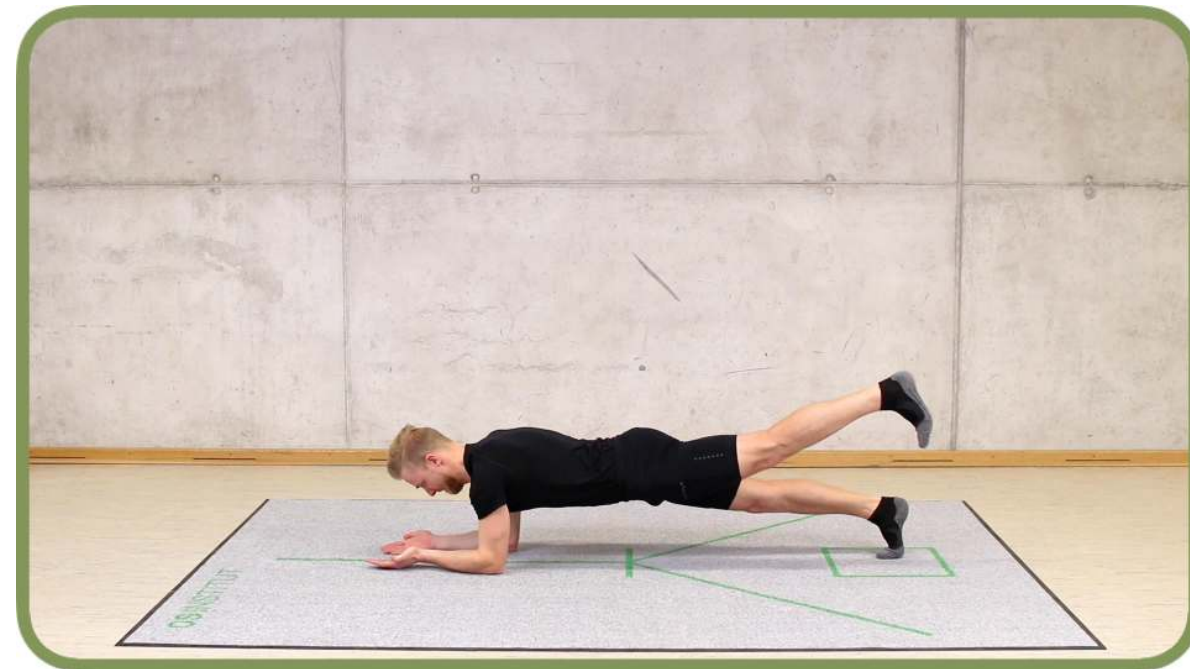
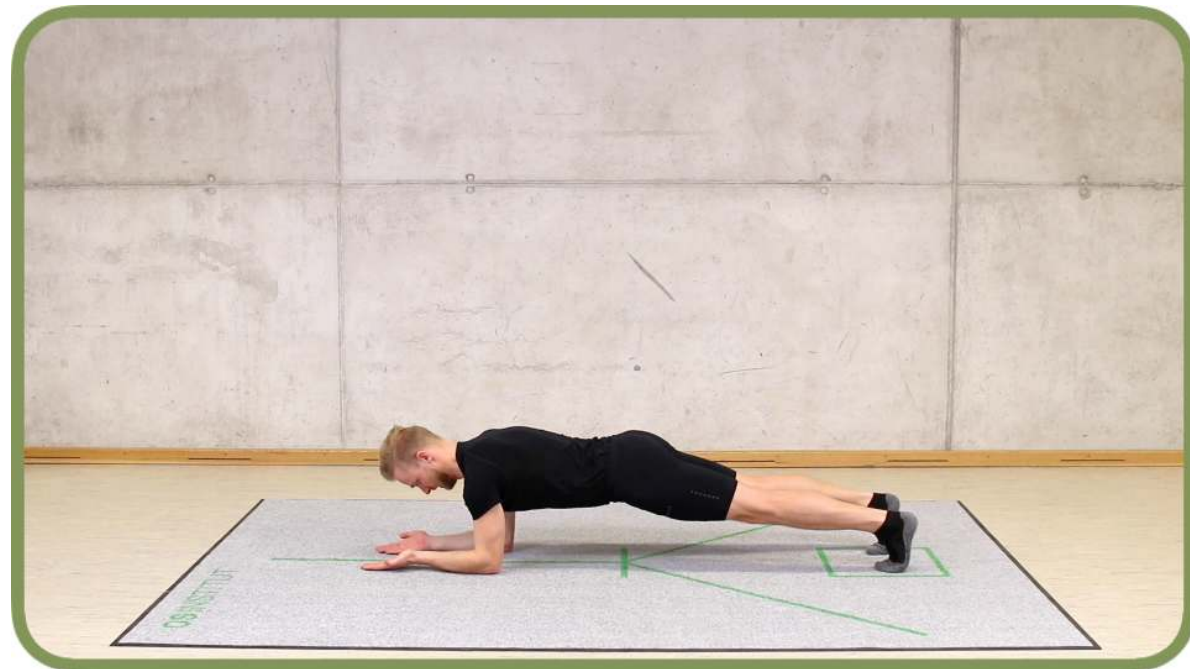
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## Plank Alternating Leg Raise



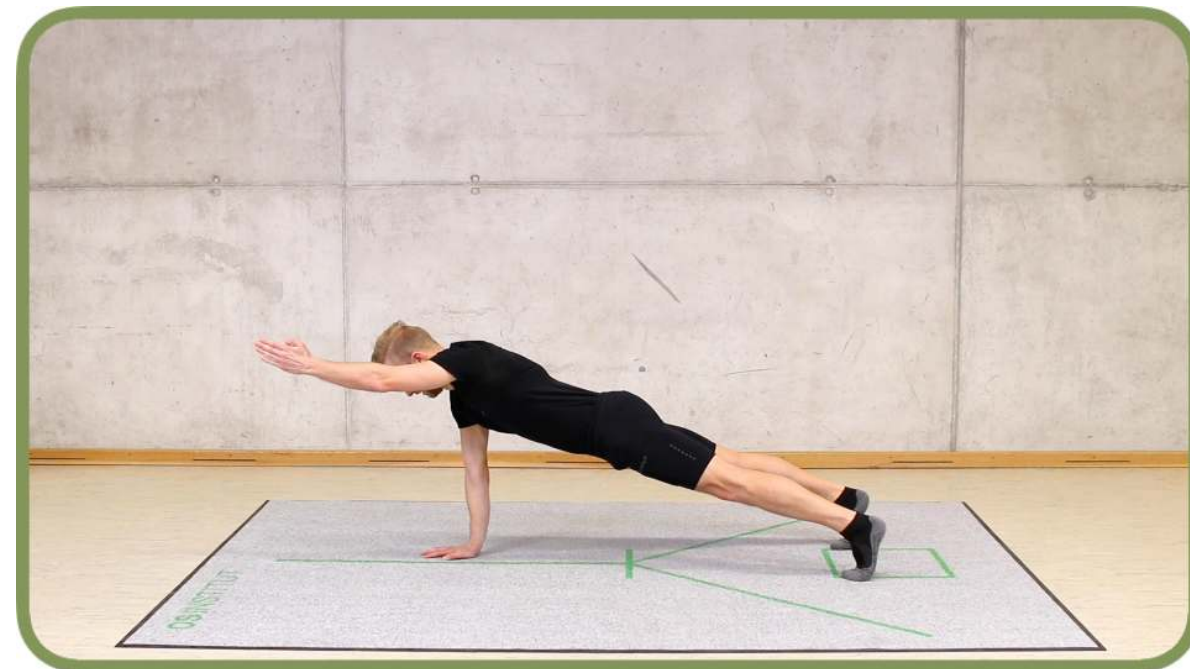
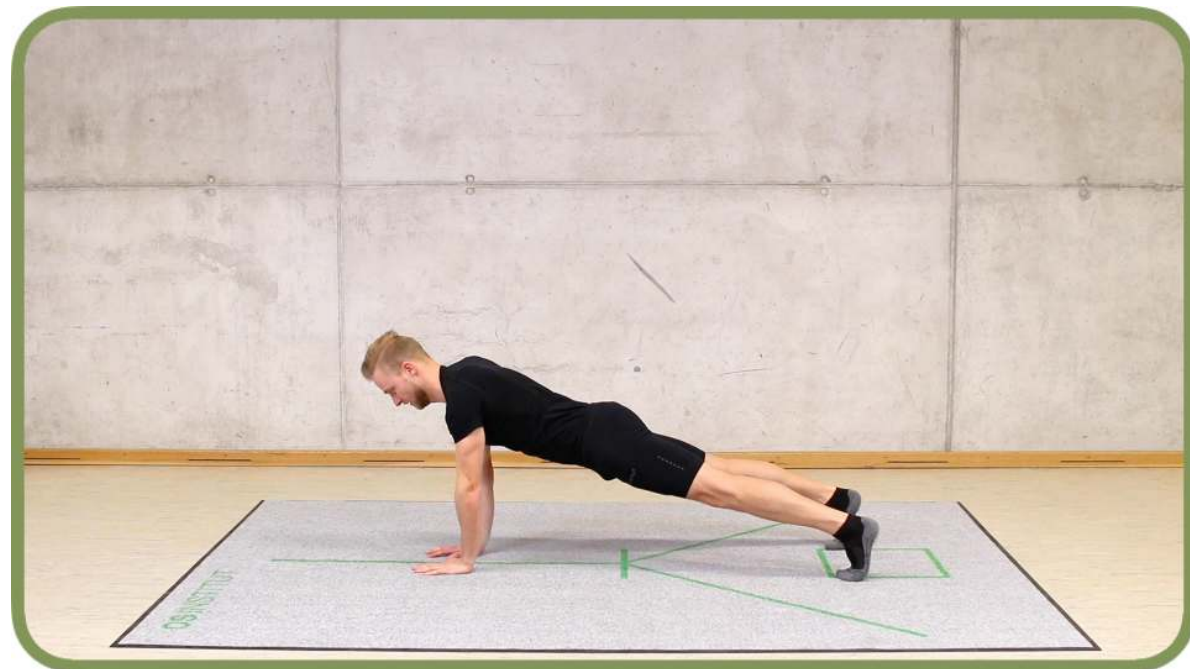
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## High Plank Alternating Arm Raise



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# Exemplarische Übungen – Voraktivierung



## Hüftaußenrotation unilateral



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## Hüftaußenrotation bilateral



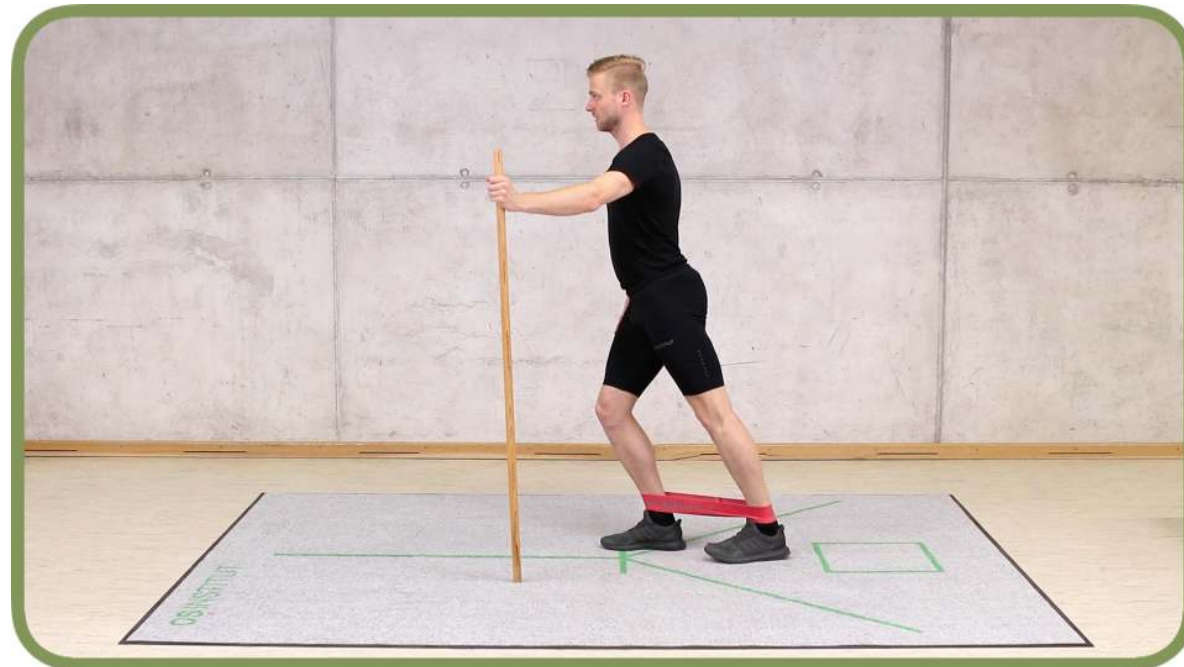
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## Hüftflexion und Hüftextension



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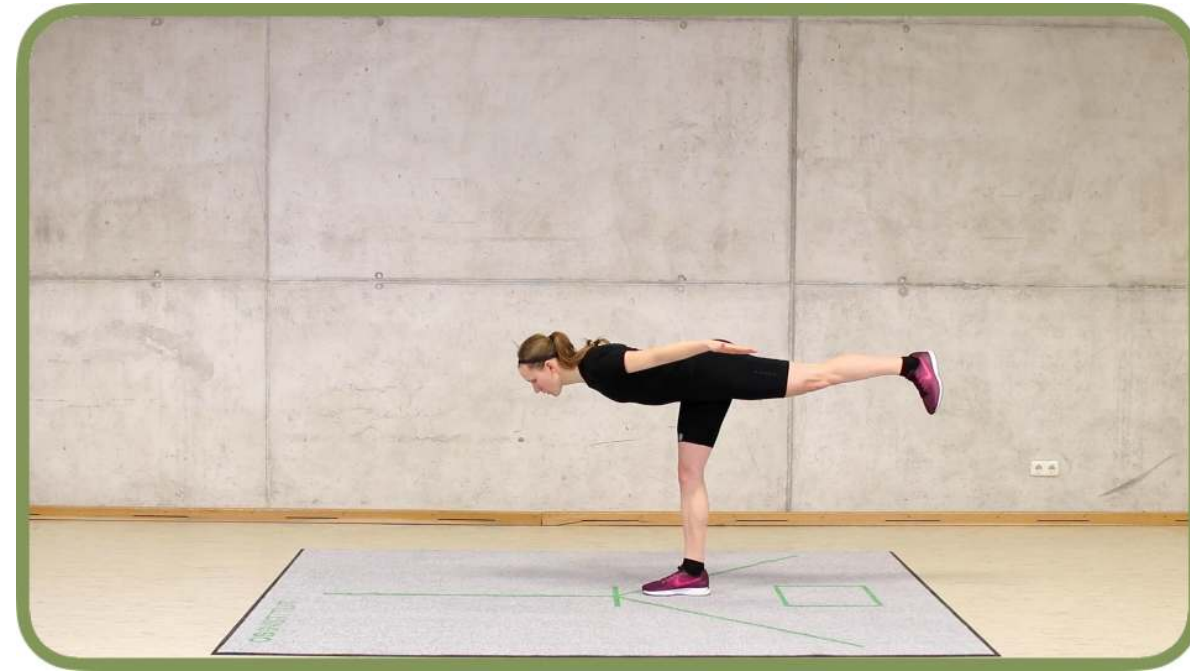
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# Exemplarische Übungen – Movement Preps



## Standwaage Knee Hug



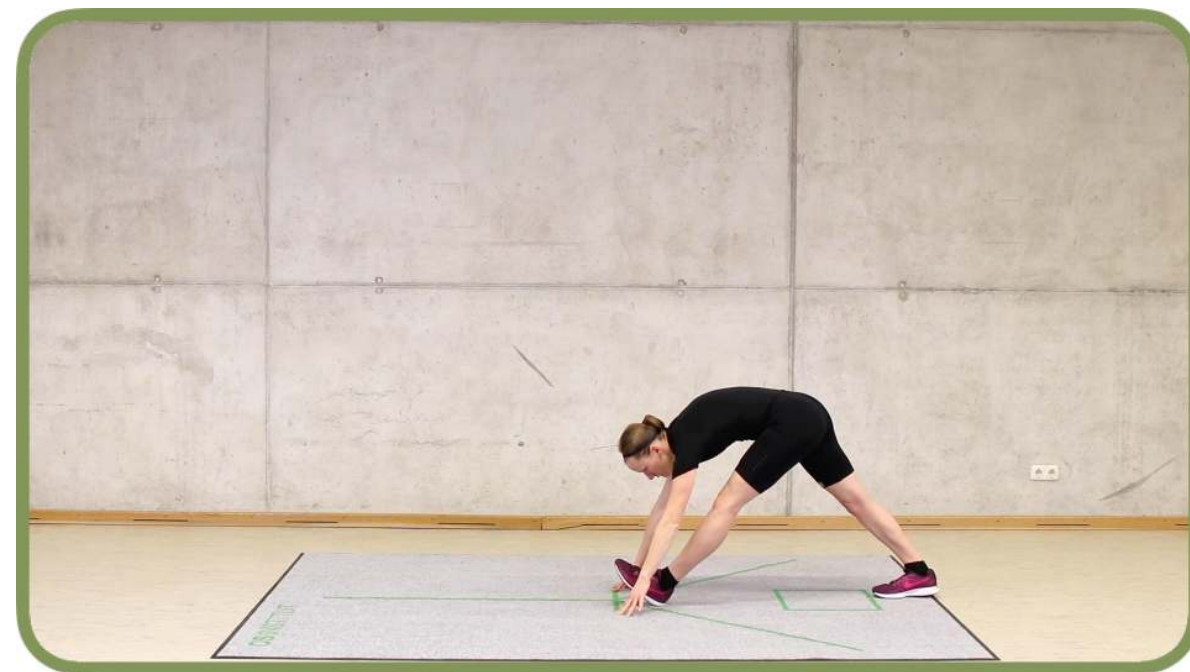
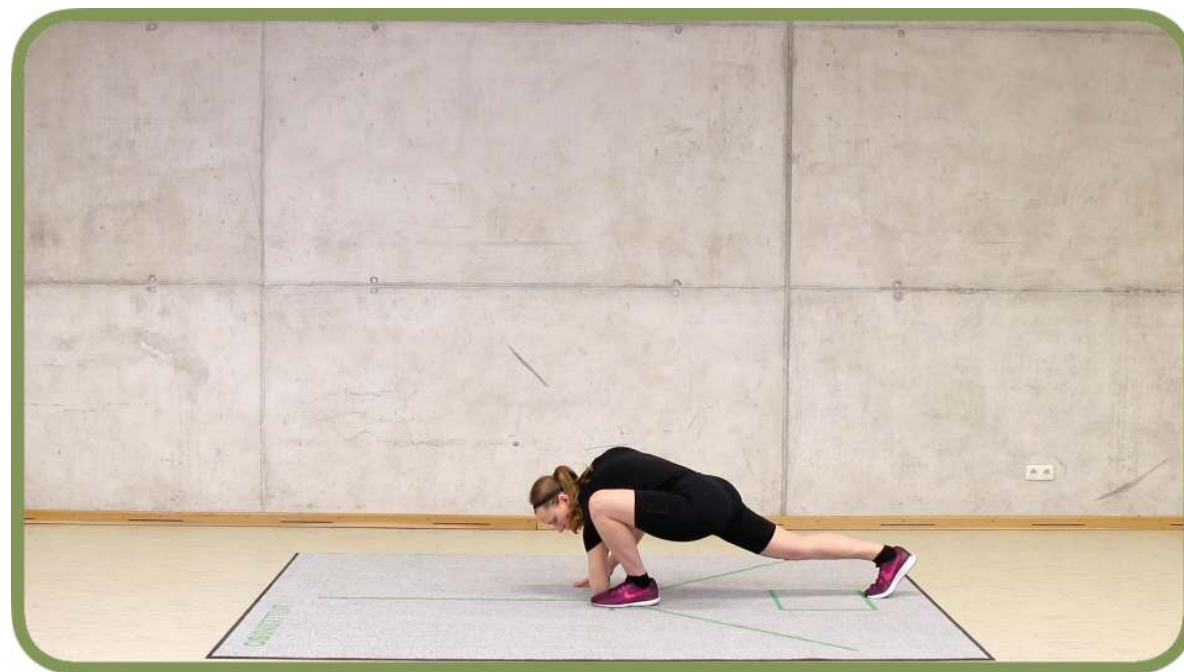
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## World's Greatest Stretch



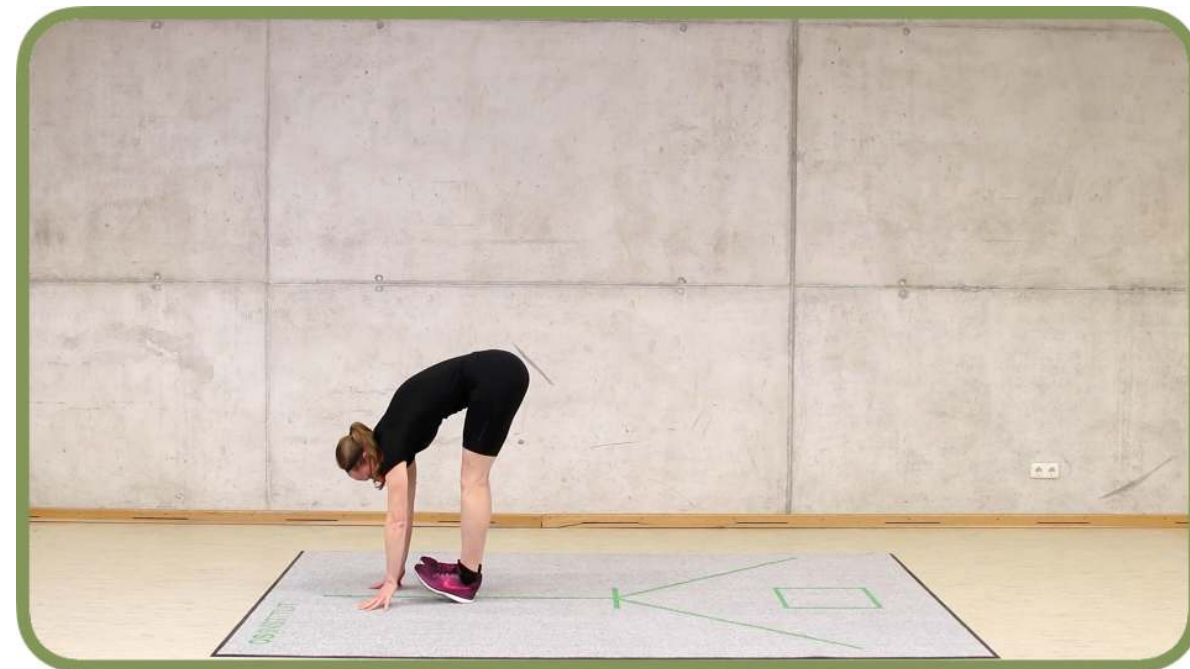
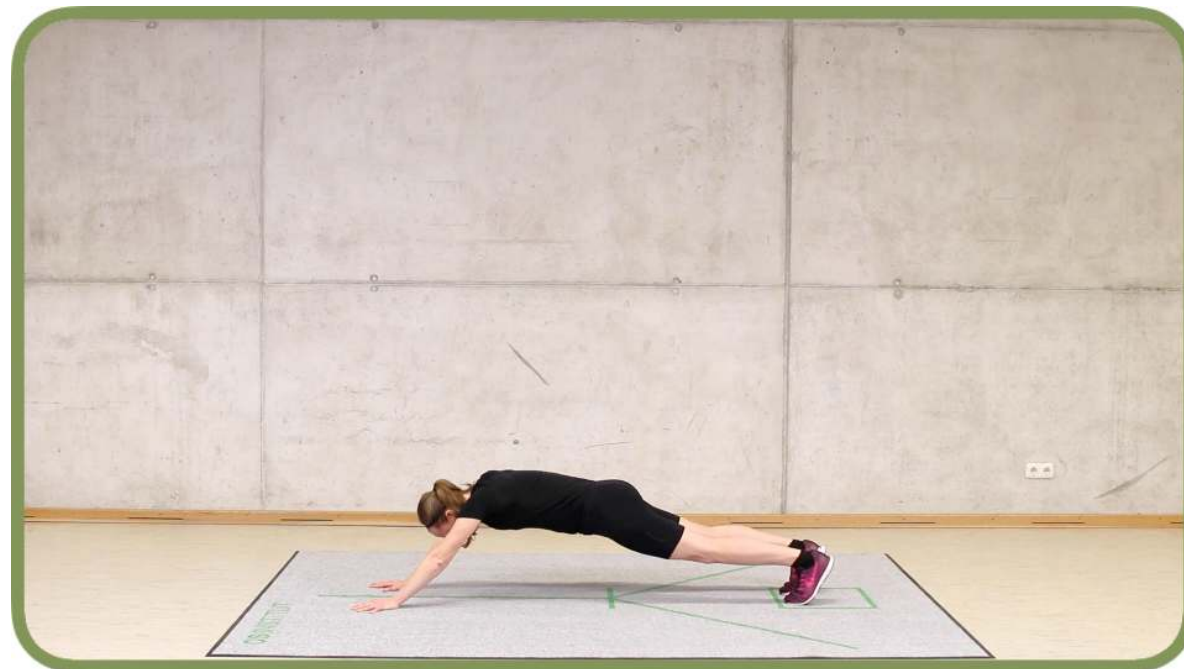
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## Hand Walk



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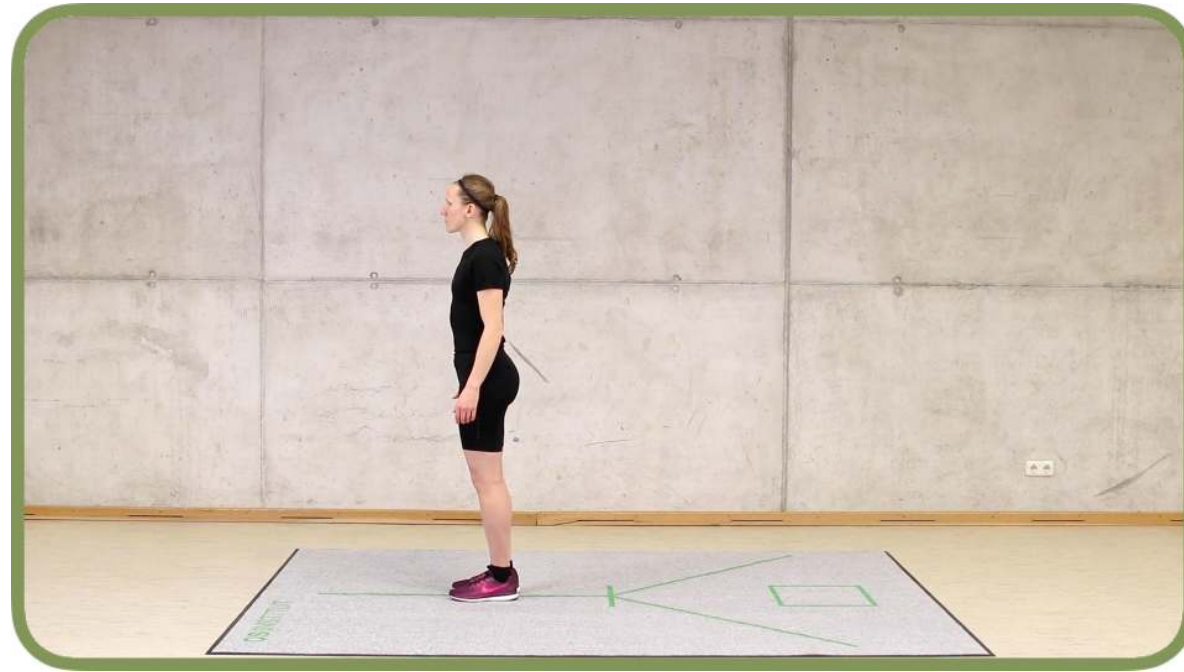
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# Exemplarische Übungen – Movement Preps



## Backward Lunge with a twist



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## Sumo Squat to Stand



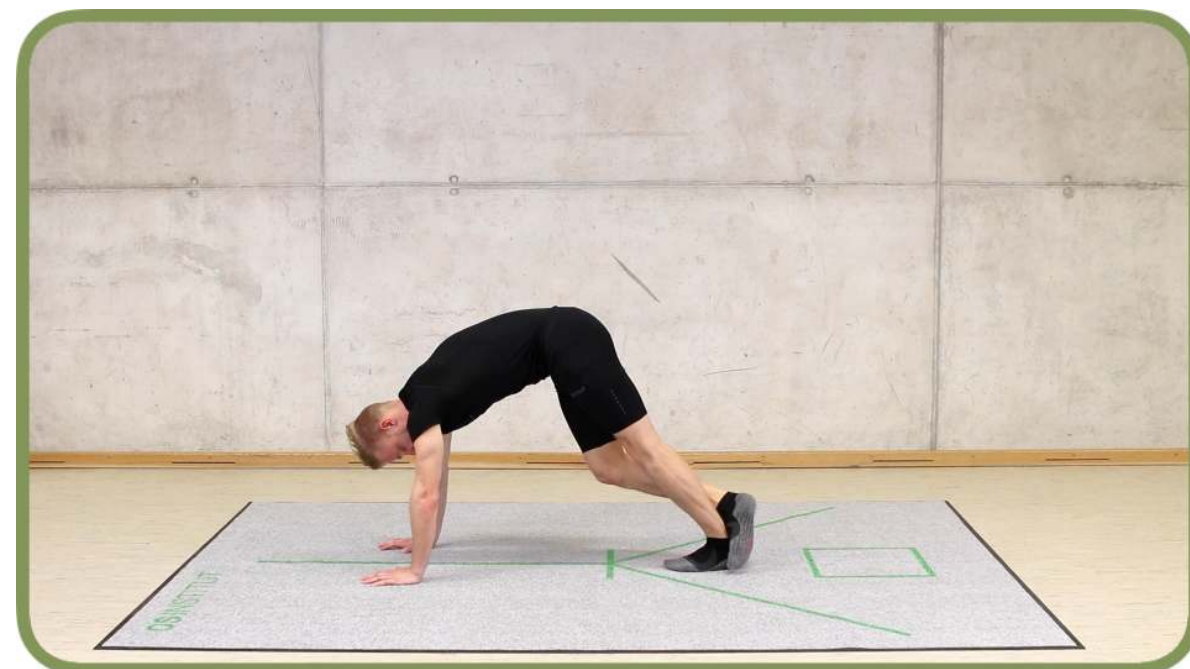
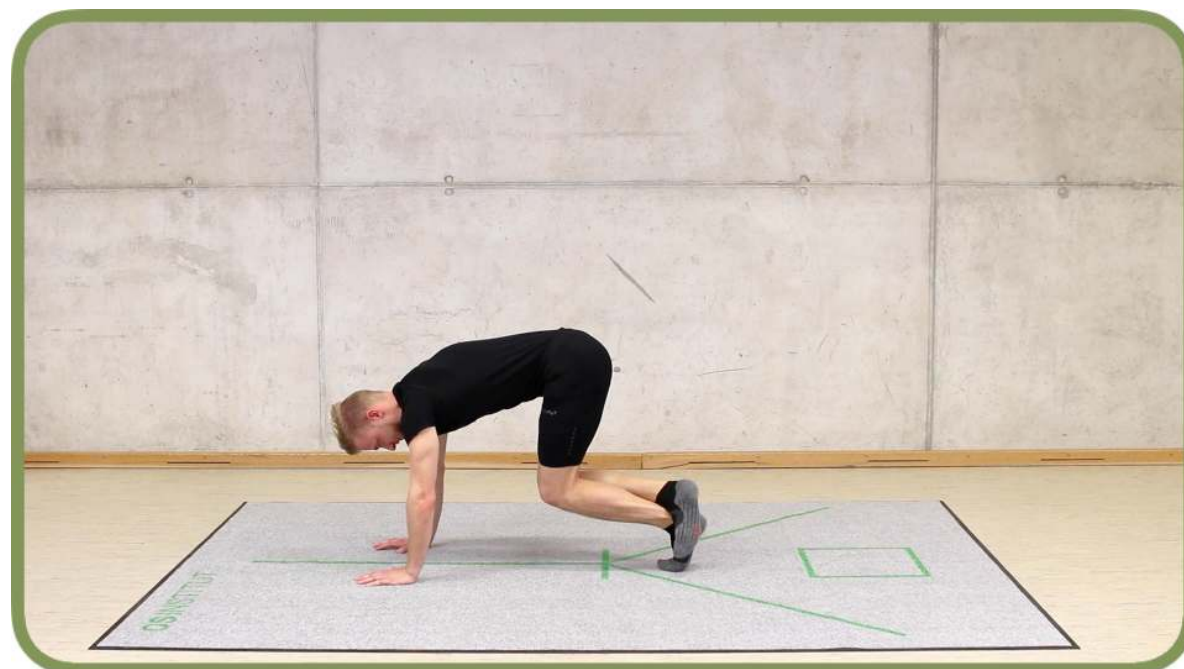
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## Calf Stretch



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# Exemplarische Übungen – Lauf ABC



## Lauf ABC Fußgelenksmobilisation



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## Lauf ABC Skippings



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## Lauf ABC Kniehebelauf



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# Movement Preps

## Erklärung

- Verbesserung der aktiven (dynamischen) Beweglichkeit ohne die leistungsmindernden Auswirkungen eines statischen Dehnens
- Anbahnung grundlegender Bewegungsmuster
- Voraktivierung spezieller Muskeln
- Verbesserung Balance- und Positions-Kontrolle
- Erhöhung der Körpertemperatur

**Hinweis:** Endposition kontrolliert halten

# Movement Preps – Individualisierung

**Regression**

**Basisübung**

**Progression**

**Variation**



# Zusammenfassung

## **Zahlreiche Belege für Wirksamkeit und positive Effekte eines Warm up**

- Insbesondere bzgl. hochintensiver Belastungen und der anaeroben Leistungskapazität
- Dauer: mindestens 10 Minuten, maximal 30 Minuten
- Einsatz aktivierender Übungen (Aktivierung, Bewegungsmuster)
- Dauer zwischen Ende des Warm up und Wettkampfbeginn möglichst kurz halten (bis 10 Minuten)

## **Warm up als Visitenkarte des Trainers**

- Erster Eindruck
- Transition

## **Vielfältige Einflussfaktoren**

- Zustand der Mannschaft (körperlich, mental, Verletzte)
- Logistik/Organisation