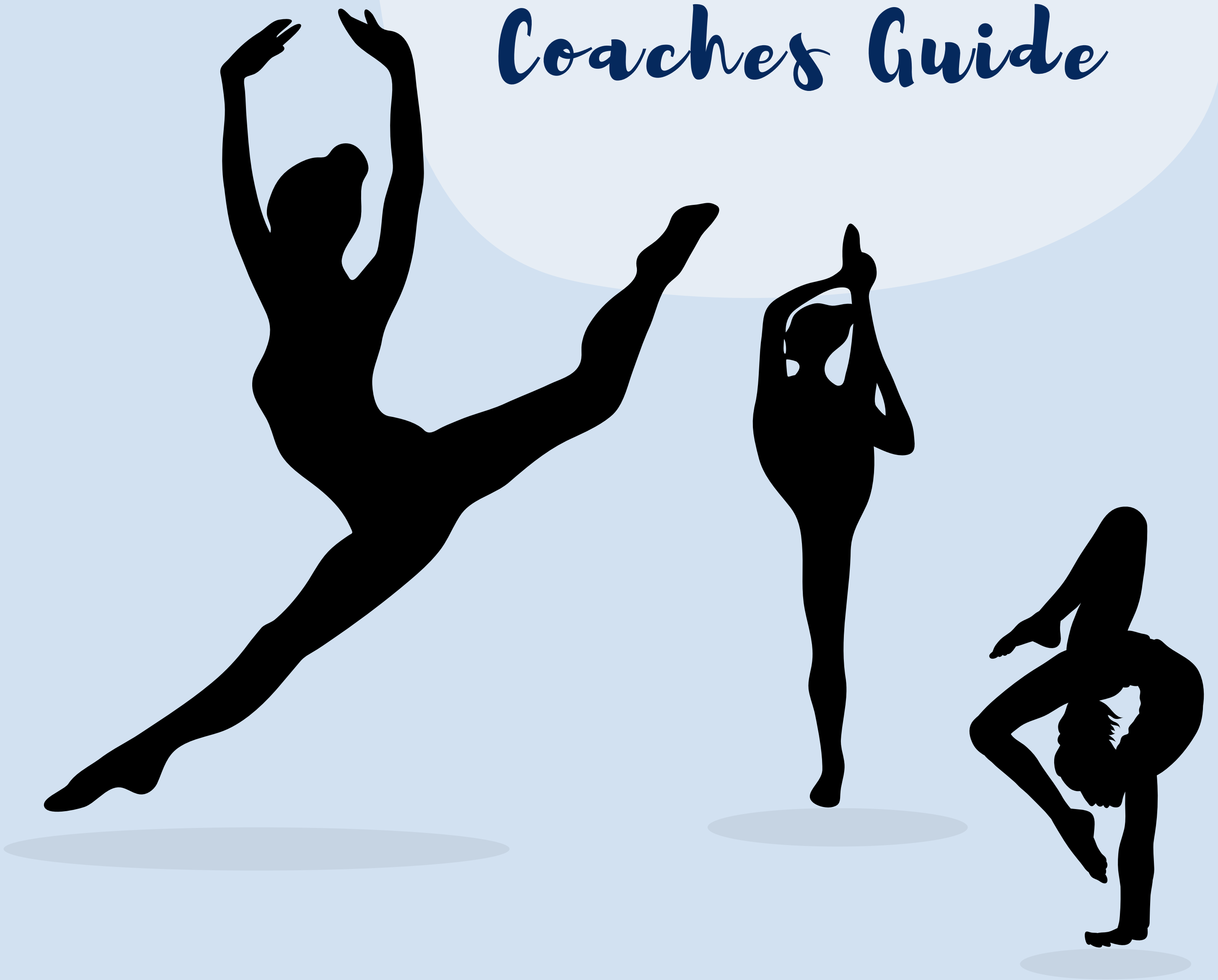


# CALISTHENICS WARM-UP

## *Coaches Guide*



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# DR SUE MAYES

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**“TO ENSURE SUCCESS OF THE PROGRAM,  
BUY IN OF ALL KEY STAKEHOLDERS IS  
REQUIRED”**

*CALISTHENICS PUPILS ARE REQUIRED TO BE SELF-RELIANT, REGARDING WARM-UPS AND STRENGTH AND CONDITIONING OPPORTUNITIES DUE TO LIMITED REHABILITATION RESOURCES WHEN COMPARED TO OTHER ARTISTIC SPORTS. ENGAGEMENT FROM CALISTHENIC CLUB PRINCIPALS, COACHES AND PUPILS IS CRUCIAL IN SUSTAINING THE GROWTH OF INJURY PREVENTION PROGRAMS AND IN TURN, INCREASING THE LONGEVITY OF PARTICIPATION IN THE SPORT.*

*THIS RESOURCE WILL EDUCATE COACHES AND PUPILS, BRIDGING THE GAP IN KNOWLEDGE BETWEEN RESEARCH EVIDENCE AND THE WARM-UP PRACTICES CURRENTLY OCCURRING. IT WILL EMPHASISE THE IMPORTANCE OF EFFECTIVELY PREPARING THE BODY FOR THE INTRICACIES OF THIS UNIQUE SPORT, AIMING TO CONTRIBUTE TO THE REDUCTION IN THE RATE OF INJURIES. IT WILL IN TURN EMPOWER CLUBS TO MAKE INFORMED DECISIONS RELATING TO INJURY PREVENTION MOVING FORWARD.*

# SETTING THE SCENE



THE PURPOSE OF THE WARM-UP IS TO ACTIVATE SPECIFIC MUSCLE GROUPS IN A WAY THAT INCREASES THE EFFICIENCY OF THE MUSCLE CONTRACTIBILITY AND PREPARE THE BODY FOR THE ANTICIPATED ACTIVITY (MUELLER, 2013).

THE AIM OF A WARMUP AS DESCRIBED BY THE AUSTRALIAN BALLET (2018) IS TO:

- INCREASE BLOOD CIRCULATION
- INCREASE HEART RATE
- INCREASE MUSCLE TEMPERATURE
- INCREASE SPEED OF NERVE IMPULSES
- INCREASE THE ABILITY OF OUR JOINTS TO ABSORB SHOCK
- ASSIST IN PERFORMING MOVEMENTS WITH EASE

IT IS COMMON PRACTICE IN CALISTHENICS TO WARM-UP WITH STATIC STRETCHING (E.G., HOLDING A SPLIT) AS A LAST-MINUTE PREPARATION STRATEGY BEFORE GOING ON STAGE OR COMMENCING TRAINING. LITERATURE HAS SHOWN HOWEVER, THAT HOLDING A STRETCH FOR AN EXTENDED PERIOD CAN REDUCE MUSCLE STRENGTH, JUMP HEIGHT AND INCREASE THE LIKELIHOOD OF MUSCLE TEARS (GUIDETTI ET AL., 2009; THE AUSTRALIAN BALLET, 2018).

**FIGURE 1**  
**THE AUSTRALIAN BALLET'S INSURANCE PREMIUMS AS NEW INJURY PREVENTION PROGRAMS HAVE BEEN INTRODUCED**



**NOTE. FROM 20 YEARS OF INJURY PREVENTION IN A PROFESSIONAL BALLET COMPANY, BY S. MAYES, 2022, AUSTRALIAN PHYSIOTHERAPY ASSOCIATION ([HTTPS://AUSTRALIAN.PHYSIO/INMOTION](https://australian.physio/inmotion)). COPYRIGHT 2022 BY AUSTRALIAN PHYSIOTHERAPY ASSOCIATION**

IN 2002, THE AUSTRALIAN BALLET REMOVED CALF STRETCHING FROM THEIR WARMUP ROUTINE. EVIDENT ABOVE (FIGURE 1) THE INSURANCE PREMIUM FOR INJURIES FROM 2000 – 2018 HAS DECLINED SINCE THE INTRODUCTION OF MULTIMODAL INJURY PREVENTION PROGRAMS. REMOVING STRETCHING AS A WARM-UP INJURY PREVENTION STRATEGY IS AN IMPORTANT CONCEPT TO CONSIDER AS CALISTHENICS PERFORMERS RARELY HOLD A PASSIVE POSITION BUT ARE INSTEAD DYNAMIC MOVING THROUGH EXTREME JOINT RANGES REQUIRING BOTH POWER AND STRENGTH TO CONTROL THE MOVEMENT.

## RESEARCH IN CALISTHENICS

A RECENT STUDY CONDUCTED BY MCDONALD-WEDDING ET AL., (2020) QUANTIFIED THE PREVALENCE, NATURE AND ASSOCIATED RISK FACTORS OF CALISTHENICS INJURIES IN ELITE AND NON-ELITE LEVEL PUPILS. ROUGHLY 80% OF THE INJURIES (FIGURE 2) REPORTED WERE AT TRAINING UNDER THE JURISDICTION OF A LEVEL 1 QUALIFIED CALISTHENICS COACH. IT IS ALSO NOTED THAT 55.9% OF PUPILS REPORTED NOT FEELING PREPARED FOR TRAINING E.G., NOT WARM/STRETCHED. THIS POINTS TOWARDS COACHES HAVING A GREATER RESPONSIBILITY AND ROLE TO PLAY IN THE PREPARATION OF THEIR PUPILS INCLUDING SUFFICIENT TIME TO WARM UP, TARGETING KEY MUSCLE GROUPS AND USING APPROPRIATE WARM-UP EXERCISES.

# TYPE OF PARTICIPATION AT TIME OF INJURY

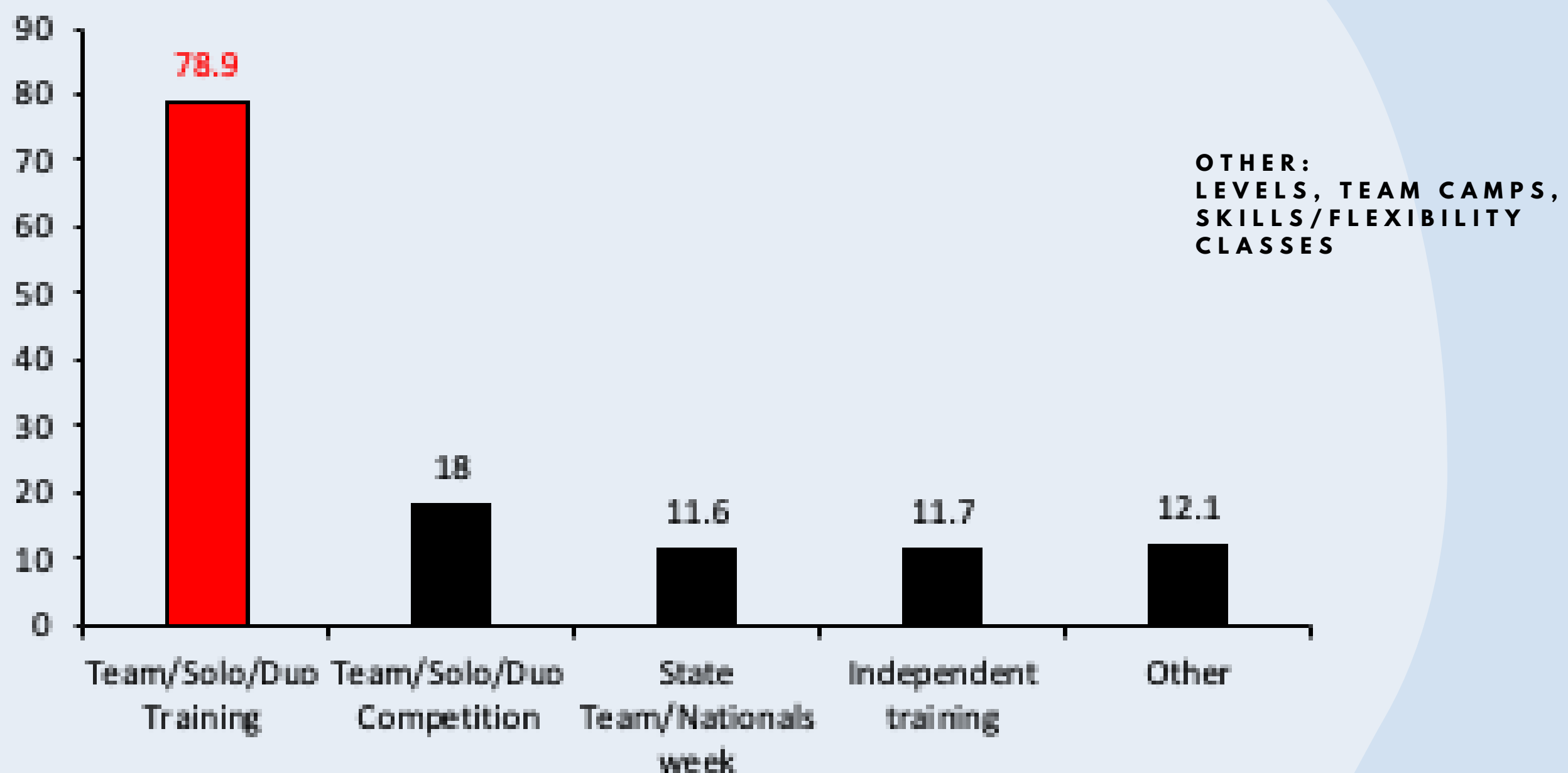


FIGURE 2. THE TYPE OF PARTICIPATION AT THE TIME OF INJURY REPORTED BY ELITE AND NON-ELITE CALISTHENICS PUPILS DURING A 6-MONTH PERIOD DURING THE 2020 SEASON

MCDONALD-WEDDING ET AL. (2020) RESEARCH ALSO DEMONSTRATED THAT THE UPPER LEG (24.5%), ANKLE/FOOT (22.8%) AND THE LOWER BACK (19.3%) WERE THE MOST COMMON ANATOMICAL SITES REPORTED INJURED BY PARTICIPANTS (FIGURE 3). THIS IS INLINE WITH THE PREVIOUS CALISTHENICS STUDY WHICH STATED THE LOWER BACK (32.4%) AND THE THIGH/GROIN/HIP REGION (25.4%) AS THE MOST COMMON BODY REGIONS (LEAF ET AL., 2003). THIS SUGGESTS THAT EVEN WITH THE INTRODUCTION OF NEW MOVEMENTS, KEY MUSCLE GROUPS ARE CORE TO CALISTHENICS AND SHOULD BE TARGETED IN THE WARMUP TO ASSIST IN REDUCING THE RISK OF INJURY.

# BODY REGION REPORTED INJURED

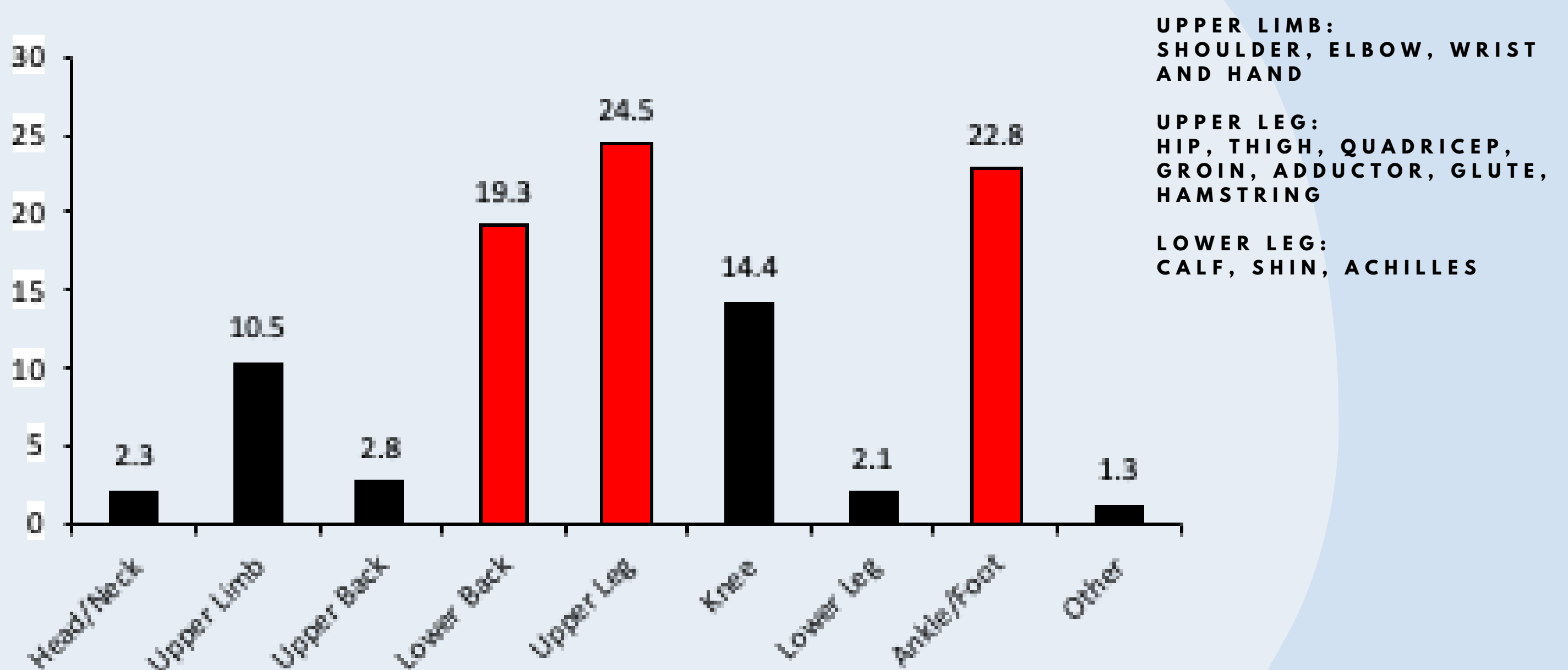


FIGURE 3. BODY REGION REPORTED INJURED BY ELITE AND NON-ELITE CALISTHENICS PUPILS IN A 6-MONTH PERIOD DURING THE 2020 SEASON

ELEVATED WORK (FIGURE 4) INCLUDING LEAPS AND JUMPS CONTRIBUTED TO 27.6% OF ALL INJURIES REPORTED (MCDONALD-WEDDING ET AL., 2020). THE ONLY PREVIOUS STUDY TO LOOK AT CALISTHENICS' INJURIES (LEAF ET AL., 2003) DID NOT INVESTIGATE ELEVATION AS A MECHANISM, SUGGESTING THAT THE EVOLUTION OF THE SPORT HAS LED TO AN INCREASE IN ELEVATION-BASED CHOREOGRAPHY. A GREATER FOCUS OF WARM-UPS NEEDS TO LEND TO SMALLER EXPLOSIVE MOVEMENTS PREPARING THE MUSCLES AND JOINTS TO ABSORB SHOCK ON GROUND IMPACT.

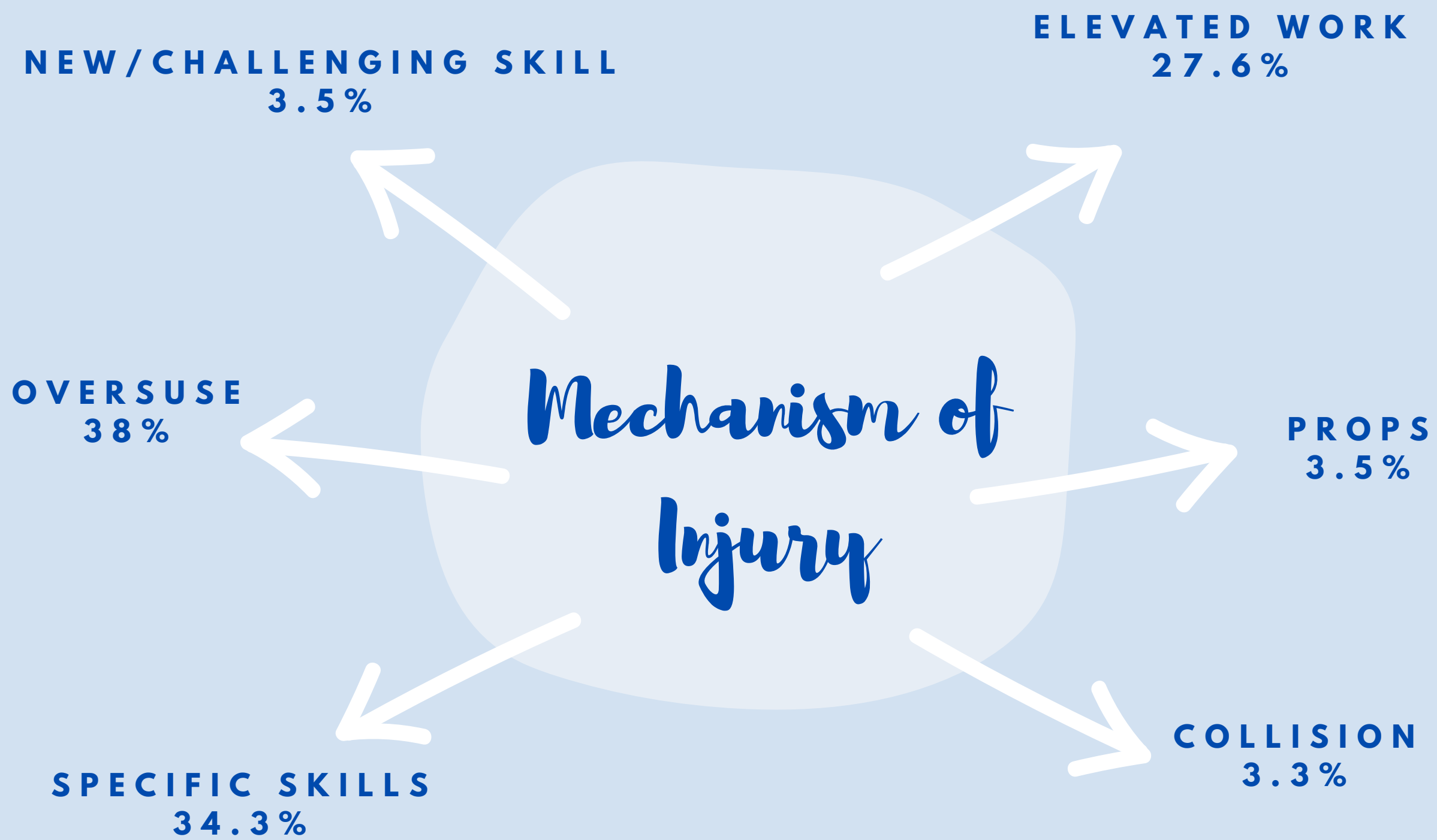


FIGURE 4. THE CAUSE OF INJURY REPORTED BY ELITE AND NON-ELITE CALISTHENIC PUPILS DURING A 6MONTH PERIOD DURING THE 2020 SEASON

THE STUDY ALSO IDENTIFIED THAT 34.1% OF INJURIES (FIGURE 5) WERE CAUSED BY MOVEMENTS CONSIDERED TO BE CORE TO CALISTHENICS E.G., STANDING SPLIT (MCDONALD-WEDDING ET AL., 2020). AN IMPORTANT STRATEGY TO MANAGE THESE SPECIFIC CALISTHENICS INJURIES IS THROUGH COACHES CORRECTING TECHNIQUE IN THE WARM-UP, WHERE CORE FOUNDATIONAL MOVEMENTS ARE PRACTICED.

## WARM UP STRUCTURE

CALISTHENICS IS A SPORT REQUIRING BOUTS OF MAXIMAL EFFORT FOR GREATER THAN 10 SECONDS BUT LESS THAN 5 MINUTES, WITH ROUTINES EXTENDING FOR A MAXIMUM 3.5 MINUTES. IT IS RECOMMENDED THAT A WARMUP IS STRUCTURED WITH A DURATION OF 20 MINUTES, AT AN INTENSITY OF 60-70% WHERE PUPILS ARE BEGINNING TO PERSPIRE BUT ARE NOT OUT OF BREATH (GUIDETTI ET AL., 2009). AN APPROPRIATE RECOVERY PERIOD SHOULD BE NO LONGER THAN 5 MINUTES (GUIDETTI ET AL., 2009), WITH THE EFFECTS OF THE WARM-UP COMPLETELY GONE AFTER 30 MINUTES (THE AUSTRALIAN BALLET, 2018). IF THE CLASS PLAN DOES NOT ALLOW FOR FREE ARM TO BE COMPLETED FIRST, COMMENCE WITH AN ITEM THAT INVOLVES HIGH INTENSITY DANCE COMPONENTS (E.G., DANCE ARRANGEMENT OR DANCE RODS). THIS WILL CONTINUE TO INCREASE THE PUPILS HEART RATE, PROMOTE BLOOD FLOW TO THE WORKING MUSCLES AND INCREASE MUSCLE TEMPERATURE.

# CALISTHENICS WARM UP

## Exercise Guide

### PART 1 | AEROBIC | 5 MIN DURATION

1

RUNNING



RUNNING/JOGGING CAN BE COMPLETED ON THE SPOT OR IN A CIRCLE. AS THE EXERCISE PROGRESSES INCREASE THE SPEED OF RUNNING. GET THE UPPER LIMBS MOVING BY SHAKING THE HANDS

2

HIGH KNEES



HIGH KNEES CAN BE COMPLETED ON THE SPOT OR IN A CIRCLE. AS THE EXERCISE PROGRESSES INCREASE THE SPEED OF THE HIGH KNEES. GET THE UPPER LIMBS MOVING BY DOING 'RUNNING' ARMS

3

BUTT KICKS



BUTT KICKS CAN BE COMPLETED ON THE SPOT OR IN A CIRCLE. AS THE EXERCISE PROGRESSES INCREASE THE SPEED OF THE BUTT KICKS. GET THE UPPER LIMBS MOVING BY SHAKING THE HANDS

4

A - MARCH



USE THE ARMS TO ASSIST IN AN EXPLOSIVE JUMP AS HIGH AS POSSIBLE. CAN COMPLETE GOING ACROSS THE ROOM OR AROUND IN A CIRCLE

5


GALLOPS



EXPLOSIVE GALLOP UPWARD CLICKING HEELS TOGETHER IN THE MIDDLE. CAN COMPLETE ACROSS THE ROOM OR AROUND A CIRCLE

6

CHOICE



ANY ADDITIONAL EXERCISES CAN BE COMPLETED THAT ELEVATE THE HEART RATE AND MOVE MULTIPLE PARTS OF THE BODY

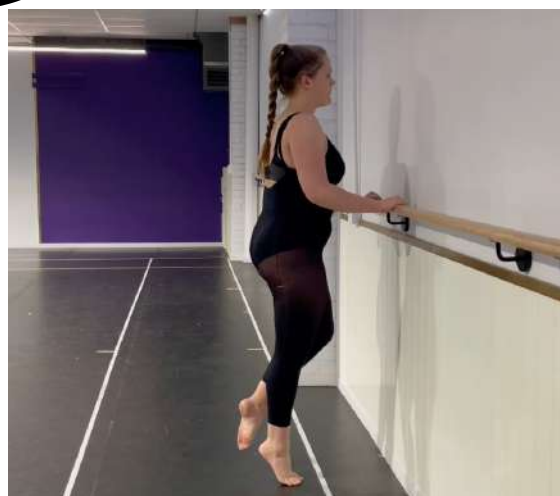
# CALISTHENICS WARM UP

## Exercise Guide

### PART 2 | ACTIVATION | LOWER BODY

1

CALF RISE

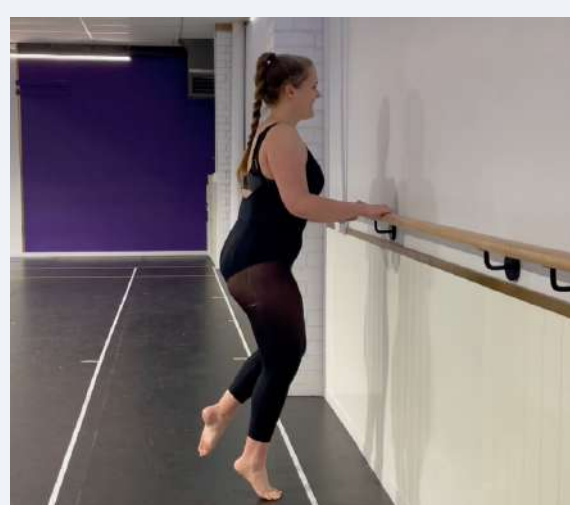


**X10 REPS EACH LEG**

STANDING ON ONE LEG, RISE ONTO THE BALL OF THE FOOT KEEPING THE KNEE STRAIGHT AND THE ANKLE TRACKING IN LINE WITH THE SECOND TOE

2

BENT KNEE  
CALF RISE



**X10 REPS EACH LEG**

STANDING ON ONE LEG, RISE ONTO THE BALL OF THE FOOT KEEPING THE KNEE BENT AND THE ANKLE TRACKING IN LINE WITH THE SECOND TOE

3

SINGLE  
LEG SQUAT



**X10 REPS EACH LEG**

STANDING ON ONE LEG, BEND DOWN WITH KNEES TRACKING OVER TOES, KEEPING HIPS LEVEL. RETURN TO STARTING POSITION. HAND LIGHTLY ON BAR FOR ADDED BALANCE

4

SINGLE  
LEG RDL



**X10 REPS EACH LEG**

STANDING ON ONE LEG, LIFT THE OTHER LEG BEHIND KEEPING HIPS LEVEL AND A FLAT BACK. SUPPORTING LEG SHOULD HAVE A SLIGHT BEND

5

GLUTE  
BRIDGE

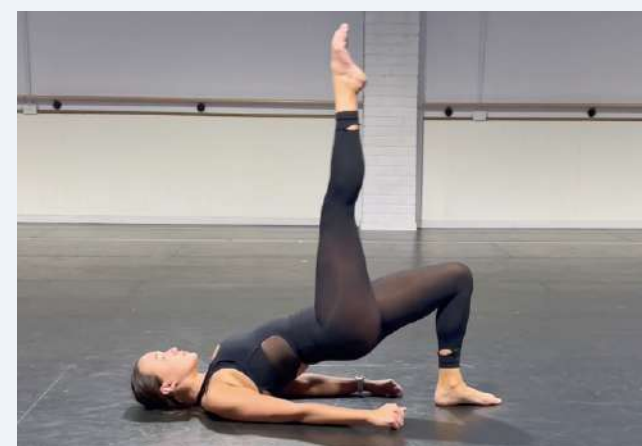


**X10 REPS EACH LEG**

ON ONE LEG, SQUEEZE THE GLUTE MUSCLES AND PUSH HIPS UP TO THE CEILING, KEEPING BOTH HIPS LEVEL. CREATE A STRAIGHT LINE FROM THE SHOULDERS TO THE KNEES

6

GLUTE  
BRIDGE  
LEG RAISE



**X10 REPS EACH LEG**

ON ONE LEG, SQUEEZE THE GLUTE MUSCLES AND PUSH HIPS UP TO THE CEILING. KEEPING BOTH HIPS LEVEL, LIFT THE OTHER LEG TO THE ROOF AND LOWER

# CALISTHENICS WARM UP

## Exercise Guide

### PART 2 | ACTIVATION | UPPER BODY AND CORE

7

#### PUSH UPS



**X10 REPS**

SHOULDERS OVER HANDS, LOWER CHEST TO THE FLOOR KEEPING A STRAIGHT BACK. RETURN TO STARTING POSITION. CAN BE COMPLETED ON KNEES OR TOES

8

#### PRONE HOLD



**X20 SEC HOLD**

SHOULDERS STACKED OVER ELBOWS, CREATE A STRAIGHT LINE FROM SHOULDERS TO FEET. SQUEEZE CORE, GLUTES AND LIFT OUT OF THE SHOULDERS

9

#### SIDE HOLD



**X20 SEC HOLD**

SHOULDERS STACKED OVER ELBOWS, CREATE A STRAIGHT LINE FROM SHOULDERS TO FEET. SQUEEZE CORE, GLUTES AND LIFT OUT OF THE SHOULDERS

10

#### DEAD BUG



**X5 REPS EACH LEG**

STARTING WITH ARMS POINTING TO THE CEILING AND LEGS AT A RIGHT ANGLE. SLOWLY LOWER THE OPPOSITE ARM AND LEG TOWARDS THE GROUND AND THEN SWAP. ALWAYS MAINTAIN A FLAT BACK

11

#### BUNNY HOPS

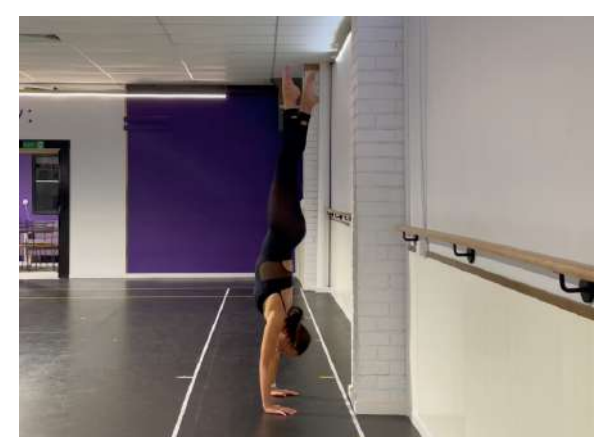


**X10 REPS**

STARTING IN A CROUCHED POSITION, PUSH OFF THE GROUND UNTIL YOUR BODY AND SHOULDERS ARE DIRECTLY OVER YOUR HANDS. SLOWLY LOWER BACK TO A CROUCHED POSITION

12

#### HANDSTAND



**X5 REPS 3 SEC HOLD**

HANDSTAND AGAINST A WALL. PUSH OFF THE WALL WITH YOUR FEET AND HOLD THE HANDSTAND POSITION. LAND BACK ON THE WALL TO RE-SET

# CALISTHENICS WARM UP

## Exercise Guide

### PART 3 | DYNAMIC MOVEMENTS | BACK

1

THREAD THE  
NEEDLE

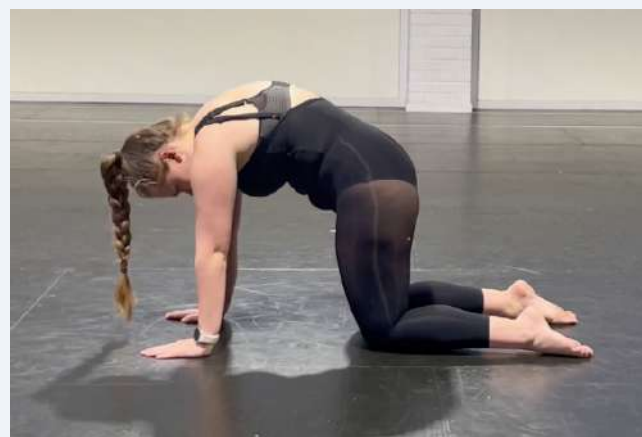


**X5 REPS EACH SIDE**

KEEPING THE BENT KNEE TOUCHING THE FLOOR, PEEL THE ARMS OPEN, OPENING THE SHOULDERS TO THE CEILING

2

CAT COW



**X5 REPS EACH**

IN 4 POINT KNEEL, START BY ROUNDING THE BACK UP TO THE CEILING PUSHING AWAY FROM THE SHOULDERS. DROP THE BACK DOWN AND LIFT HEAD TO THE ROOF

3

BACKBEND



**THROUGH RANGE**

STANDING A STEP AWAY FROM THE WALL. BEGIN BY CRAWLING HANDS DOWN THE WALL. EACH TIME GETTING FURTHER DOWN THE WALL UNTIL REACHING A BRIDGE ON THE FLOOR

### PART 3 | DYNAMIC MOVEMENTS | LOWER LIMB

4

FORWARD  
KICK

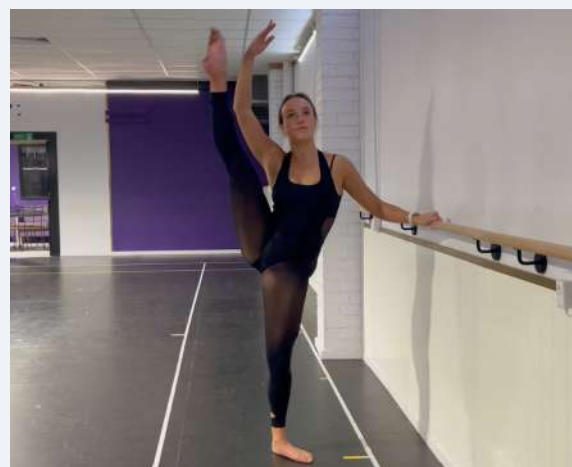


**THROUGH RANGE**

STEPPING FORWARD KICK THE LEG FORWARD, STARTING LOW AND PROGRESSING TO A FULL HEIGHT FORWARD KICK ON BOTH LEGS. KEEPING THE BOTTOM KNEE STRAIGHT AND THE HIPS SQUARE

5

SIDE KICK



**THROUGH RANGE**

KICK THE LEG TO THE SIDE, STARTING LOW AND PROGRESSING TO A FULL HEIGHT SIDE KICK. KEEP THE BOTTOM KNEE STRAIGHT AND THE HIPS SQUARE. COMPLETE ON BOTH SIDES

6

FAN KICK



**THROUGH RANGE**

KICK THE LEG AROUND DRAWING A SEMI-CIRCLE WITH THE FOOT. STARTING LOW AND PROGRESSING TO A FULL HEIGHT FAN KICK. KEEP THE BOTTOM KNEE STRAIGHT AND THE HIPS SQUARE. COMPLETE ON BOTH SIDES

# CALISTHENICS WARM UP

## Exercise Guide

### PART 4 | EXPLOSIVE

1

#### DOUBLE LEG JUMPS



**X10 FAST**

FAST AND EXPLOSIVE JUMPS  
POINTING THE TOES BETWEEN  
JUMPS. THINKING OF BEING  
'SPRINGY' WITH A SOFT LANDING

2

#### HOPS



**X10 FAST EACH LEG**

FAST AND EXPLOSIVE JUMPS  
POINTING THE TOES BETWEEN  
JUMPS. THINKING OF BEING  
'SPRINGY' WITH A SOFT LANDING

3

#### LANDING ACTION



**X10 FAST EACH LEG**

FAST AND EXPLOSIVE JUMP  
FORWARD FROM TWO LEGS LANDING  
ON ONE LEG. A SOFT LANDING BY  
BENDING THE SUPPORTING KNEE AND  
BALANCING FOR A FEW SECONDS

4

#### CHANGE OF DIRECTION



**X5 EACH LEG**

FAST AND EXPLOSIVE LEAPS  
DIAGONALLY, LANDING ON A SOFT  
KNEE AND BALANCING FOR A FEW  
SECONDS

5

#### GRAND JETE



**X2 REPS EACH SIDE**

BRINGING TOGETHER ALL  
COMPONENTS, EXPLOSIVE JUMP  
UP AND SPLITTING THE LEGS,  
KEEPING THE BODY UP STRAIGHT

6

#### CHOICE



**X2 REPS EACH SIDE**

BRINGING TOGETHER ALL  
COMPONENTS, EXPLOSIVE JUMP  
UP AND SPLITTING THE LEGS,  
KEEPING THE BODY UP STRAIGHT

Note: this is a warmup only and further strength and conditioning must be done in conjunction with this resource to further enhance injury prevention

## ACKNOWLEDGEMENTS

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