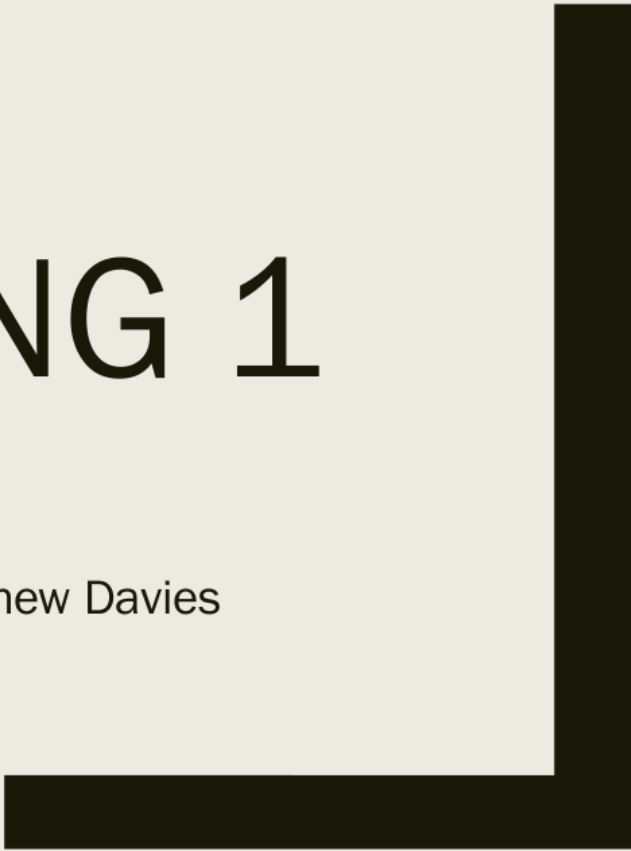




DANCE TRAINING 1

Fitness PowerPoint

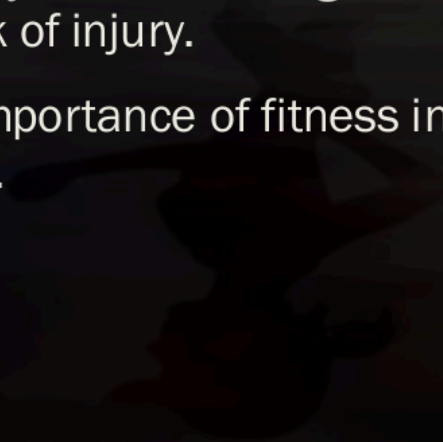
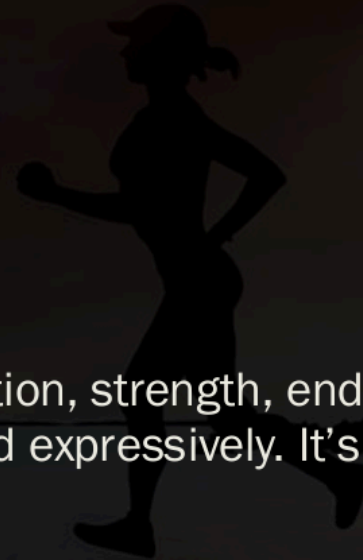
By Eva Court, Sienna Toppar, David Walker, Matthew Davies



Introduction:

What does fitness mean in dance?

- In dance, fitness means having flexibility, coordination, strength, endurance and control to be able to perform movements safely and expressively. It's about supporting technique, not just being in shape.
- Fitness in dance is essential because it helps you to have long-term participation, improves performance and decreases the risk of injury.
- In this PowerPoint we will be discussing the importance of fitness in dance and key components of fitness associated with dance.



Key components of fitness for dancer: (Eva)

Health related
components:

Muscular strength-
“The amount of force a
muscle can exert
against a resistance”
(BBC 2023)

Muscular endurance-
“The ability to use
voluntary muscles
repeatedly without
tiring” (BBC 2023)

Body composition-
“The percentage of a
person’s body weight”
(BBC 2023)

Flexibility- “The range
of motion at a joint”
(BBC 2023)

Cardiovascular
endurance- “The ability
of the heart, lungs and
blood to transport
oxygen” (BBC 2023)

**Skills related
components**

Agility- The ability to
change the position of
the body quickly and
control the movement
(BBC 2023)

Speed- The ability to
put body parts into
motion quickly (BBC
2023)

Power- The ability to
perform strength
performances quickly
(BBC 2023)

Balance- The ability to
maintain the body’s
center of mass above
the base of support
(BBC 2023)

Reaction time- The
time taken to respond
to a stimulus (BBC
2023)

Coordination- The
ability to use 2 or more
body parts at the same
time (BBC 2023)



Flexibility: (Sienna)

Why is having flexibility important for dancers?

Flexibility is important in dance because it allows you to have a better range of motion and also reduces the risk of injury by letting the body move through positions safely. Flexibility also helps to improve joint mobility and muscle length which then directly helps your movement quality. Acro unlimited say's "Overstretching and using incorrect techniques can damage the muscles and ligaments, leading to chronic pain or even permanent injury" (acro unlimited 2025)

There are 2 types of flexibility:

Dynamic flexibility – "the range of motion in a joint when it is moving" (Lee, s 2025)

Static flexibility – "the range of motion in a joint when it is not moving" (Lee, s 2025)

Mobility: (Sienna)

Why is mobility important for a dancer?

Mobility helps the dancer to move freely, transition and have clean lines whilst reducing the risk of injury and stiffness. Flexibility also plays a role in mobility as flexibility allows for your joints to be able to go through a range of motions. Good mobility can help dancers to complete difficult choreography, express themselves through movement and reduce the risk of injury. Sarah Lee says “several factors can affect a dancer's mobility, including: age...Training...Injury...Genetics”. (Lee, S 2025)



Movement in dance	Why flexibility is important for it
Split leap	Flexibility is important for a split leap because flexible hip flexors, hamstring and adductors let the legs fully open, it allows the body to jump higher producing a more aesthetically pleasing leap and helps to maintain balance on the landing.
High kick	Flexibility is important for a high kick because more hip flexibility helps you to get the leg higher, it allows smoother and more precise kicks, and proper alignment is easier when the joints are able to move freely.

Movement in dance	Why mobility is important
Splits	Mobility is important for the splits because if you don't have hamstring and hip mobility the legs won't be able to form a straight line, mobility in muscles and joints prevents strains or tears and it also helps your pelvis and hips stay level for a balanced split.
Arabesques	Mobility is important for an arabesque because back and hip mobility helps the leg to lift higher without adjusting your form, mobile ankles, hips and spine help you to stay balanced and it helps prevent strain on any muscles or joints.

Strength and Muscular endurance: (Eva)

Why is having strength important for dancers and musical theatre performers?

Strength is crucial “to assist in the control and execution of movements” in dance (Kalogridis 2023). Strength is also essential for components such as balance and posture as it adds technicality and an artistic presentation of the movements adding to the overall performance quality. Having strength as a dancer is also important for injury prevention, Sharpen Dance Training states, “while flexibility allows for a greater range of motion, it is the muscular strength that provides joint stability and support.” This shows that it supports flexibility by ensuring safe ranges of motion and helps dancers maintain endurance during long performances. Strength is essential for dancers because it stabilizes joints, prevents injury and adds control to movements.

Why is having muscular endurance important for dancer and musical theatre performers?

Muscular strength is important for dancers as it sustains performance, prevents fatigue, improves control and supports stamina. “Muscular strength creates speed and force, making for more powerful movement.” (Anker 2016) Muscular strength is the foundation for powerful, fast movements. It’s what gives dancers and performers the force and speed needed to execute specific movements. Having muscular strength as a dancer and musical theatre performer is also essential for long performances as having that strength will allow the performer to not feel as fatigued throughout and at the end of the show, allowing them to perform regularly.

By Eva

Movement in dance:	Why strength is important for it:
Pirouettes	Having core strength stabilize your body when turning in either jazz or ballet. Mayes (2024) states “during pirouettes, the core muscles help you maintain balance and control as you spin”. Which shows that you need core strength to achieve pirouettes.
Jumps and leaps	To execute jumps and leaps in jazz or ballet strength in the core, legs and ankles are need to get that high elevation and the jump itself. “Good core strength and alignment are critical.” (Sage Island 2023)

Movement in dance:	Why muscular endurance is important for it:
Routine (Stamina)	Muscular endurance is crucial when performing a routine as it allows the dancer to sustain a high amount of energy without feeling fatigued.
Fast footwork (Tap)	To paraphrase from Paula 2025, having muscular endurance allows the muscles specifically in the calves, ankles, and shins to perform rapid, repetitive movements over an extended period without fatiguing or causing the technique to become sloppy.

Cardiovascular fitness (Dai)

The importance of Cardiovascular endurance

Increases the ability to be able to perform long and intense routines for an extended period of time. This is important in dance and performing as a whole, due to an audience being affected by the fatigue or lapse in intensity of a performer on stage.

Studies suggest that the best kind of exercise for improving cardiovascular endurance is interval training, such as circuit. This sort of training is high intensity for a period with short breaks in between exercises.

Why this works?

Very rarely would a dancer go for a slow 45-50 min jog so interval training where you'd do 3-5 minutes of high intensity with breaks between sets improves the strength of a performer's lungs and heart.

Power in Dance

Power in Dance is the combination of strength and power in a movement to create impactful and controlled movement.

The four sources of power are:

- **Gravity Power**, which is constantly at work pushing us towards the floor.
- **Muscular Power**, utilized when engaging various muscles to move the body.
- **Centrifugal Force**, which is power created on the outside of a turn.
- **Centripetal Force**, which is power created on the inside of a turn.

Power in dance is important as it helps with your ability for leaps and jumps, it also helps with the control of the return after.

Power is also very important in the dynamics of dancing to create an impactful and enjoyable routine and for performers.

Types of Exercise to improve power for dance

- Planks and Russian twists for core strength (especially in lifts)
- Kettlebell swings
- Box Jumps
- Jump squats

Overall body weight intense exercises work well for improving power which adds to balance and dynamic in dance and performance.

Applying training principles to dance:

Applying training principles to dance ensures that physical conditioning is purposeful, effective and specific to a performer or performances demands. Principles such as specificity, progression and recover should be integrated into a dancers training program to improve performance and reduce injury risk.

Specificity requires training to show the movement patterns, energy and muscular demands of dance styles. This training could be exercises such as repeated jumps, balances and explosive movements (Stevenson 2025) Progressive overload will allow dances to gradually increase training loads, intensity and volume to improve without excessive fatigue (Haff and Triplett 2015).

Variating training methods such as combining cardiovascular training, interval training and resistance based muscular conditioning will support physical development and mirrors the intermittent nature of dance performance (Stevenson 2025). Beneficial recovery is equally as important as insufficient rest can affect technique, coordination and muscular control increasing injury risk (ACSM 2018)

When all these principles are applied through a needs analysis, structured programming and appropriate exercise, dancers can improve their endurance, strength, power and movement efficiently while sustaining long term performance quality (Stevenson 2025)

CONCLUSION

In conclusion, fitness plays a vital role in dance performance, as it supports both technical ability and expressive movement. Key components such as flexibility, mobility, strength, muscular endurance, cardiovascular fitness and power all contribute to a dancer's ability to perform safely, confidently and effectively. By developing these areas of fitness, dancers can improve performance quality, reduce the risk of injury and maintain long term participation in dance and musical theatre.

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