



DANCE AOTEAROA NEW ZEALAND

Warming Up and Cooling Down to Keep Injury Free

A resource for Recreational and Social dancers

By Brian Jones, Tania Huddart and DANZ
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This DANZ resource focuses on how social and recreational dancers can prepare themselves for dance and prevent injury. While it is aimed at the recreational dance sector, it is good basic information for all dancers. Following this introduction you will find **Quick Tips** by dance celebrity Brian Jones and then a **Comprehensive Guide** to warm up and cool down by studio specialist Tania Huddart.

Background – injury prevention

Dance is a highly popular physical activity in New Zealand - the 7th most popular recreational activity for all, so it is to be expected that as it grows in popularity we also have more injuries. However as ACC have said, the positive benefit of strengthening, fitness, core body strength and better balance which comes from dance, far outweighs the injuries. But all dancers, at whatever level they engage, need to warm up and cool down and ensure they are fit and strong enough to dance in the particular style they choose.

Given that much of our dance happens in the evening, after a hard day at work, when people may be cold, have stiff muscles and are tired, the risk of injury is increased. Too often people begin their dance session with no preparation. Another common problem is when people begin their dance session with severe stretching without warming up the body. This increases the risk of injury and is not good practice. The warm up is also a time for you to tune your mind and body into dance and leave behind the grind of the day.

"Warm muscles are more flexible than cold ones and you will be less likely to sustain an injury. Cold muscles are less flexible and injure more easily. Cold muscles and tiredness together is a recipe for injury!" Tania Huddart.

DANZ hopes this resource will help spread the word about good dance practice - what a good basic warm up is, why it should always be done before dancing and how to cool down.

It is your responsibility to warm up and cool down for dance if the teacher does not take you through the process.

We encourage teachers to promote this resource in their studios and classes so there is less potential for injury when people dance.

Summary:

Warm up is essential for ALL dancers on all dance occasions (rehearsal, class, practice, and performance) to prepare for dance, both mentally and physically, and to prevent injury. This applies to all styles of dance.

Simple warm up and preparation guide:

Stretch and flex feet

Rise and lower on the balls of your feet

Transfer your weight from one foot to the other, with soft slightly bent knees

March briskly on the spot, moving your arms as well

Leg swings or knee lifts front and behind

Shrug and roll shoulders

Turn your head gently from side to side

Roll the body forwards down the spine, starting with the head, and roll up again

Jog on the spot

Stability and Balance

Engage your abdominals when moving to help balance and strength

To naturally incorporate breathing into your movement, breathe in as you lift your arms or body and breathe out as you lower

Simple Cool down

Walk, jog or move the body gently for 2 minutes

Follow with up to 5 minutes of gentle stretching

The following two articles give more detail on dance preparation.

Enjoy your dancing!

Dr. Tania Kopytko
Executive Director
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Quick Tips - Preparing for Dancing

By Brian Jones

As a teacher, coach and performer I am aware of the tendency, when dancing socially, to neglect preparing the body before we start. Especially as we mature, the need to stimulate the blood flow through the muscles and mobilise the joints before dancing becomes more important to prevent injury.

Here are some simple exercises which can be performed to get you started:

- Firstly engage your abdominal muscles. Think of holding a medium sized rubber ball in your hand and gently squeezing it. You'll notice how the muscles contract. Now

apply that idea to your abdominal area. This will help support your spine and help with balance.

- Lifting one heel, roll up through the foot as though trying to put your heel over your toes. Then roll down through the foot, lowering the heel. Repeat with the other foot. This will mobilise the joints of the foot in preparation for the rising and lowering action used in a lot of social dance.
- Keeping your weight over the balls of your feet, slightly bend or soften your knees, then shift your body from side to side, transferring your weight from foot to foot. This will help focus your balance. You can try this with your feet close together and then move them further apart e.g. hip width apart. Keep your knees over your toes for good alignment.
- Bend or soften through your knees, with your weight slightly forward on the balls of your feet as you bend. Using a smooth action, slowly straighten, and then, focusing on your abdominal muscles, lift up through your body and rise up onto your toes. Then slowly lower to your starting position before repeating. This starts to combine the movements, working the body a little more.
- Using a smooth circular action, press or move your shoulders forward and then lift them as you roll them back and allow them to settle down. Do this a few times to help relax the neck and shoulder area.

Some points to keep in mind when dancing:

- Connect through the abdominals. In other words engage your abdominal muscles to support your spine and help maintain your balance.
- When turning or pivoting, make sure your weight is balanced forward over the ball of the foot you are standing on. The turn is generally made on the large pad at the base of the big toe. This is your pivot point.
- Also when turning, use the sides of the body to take you round. If I am turning to the right I bring the left hip and shoulder round to turn, while keeping my balance on the pivot point of the standing foot. This should help keep your knees in alignment over the foot, avoiding twisting and injuring the joint.

Happy and healthy dancing! - Brian Jones

Comprehensive Guide to Warm Up and Cool Down for Dance

By Tania Huddart

A warm up prepares you physically and mentally for dance. The warm up is vitally important and should be part of every social and recreational dancer's regular routine for every class and practice.

A proper warm up increases body temperature, heart rate and blood flow.

As your body warms up, muscles become more elastic and your brain becomes more mentally alert. The warm up offers an opportunity to work on a wide range of movements that will prepare you for your class.

Warming up - getting started

The following information acts as a general guideline and in many cases represents the ideal model. Sometimes it can be difficult to warm up because of your class situation or time and space constraints. Your creativity will play a role in making these concepts and ideas a part of your preparation for class.

- Arrive a few minutes earlier for class to give you enough time to prepare your body and mind. Wear warmer clothing, e.g. a sweatshirt, for your warm up and take it off once your body is more flexible.
- Wear flat comfortable shoes or bare feet. Warm up your feet before you put high heels on.
- Five to ten minutes spent warming up your body will be of great benefit to you in the long run. It is very easy to hurt shoulder joints for both partners, when leading turns and following them, if you have not warmed up properly. Knees and hip joints also need a lot of care to ensure correct rotation of the foot on the floor.
- Warm up exercises need to be performed gently and carefully. It is helpful to start from your feet and work your way up your body to your neck and head areas.
- A warm up should comprise medium level whole body general activity – it does not begin with stretching - particularly before the muscles are warm.
- Warm muscles are more flexible than cold ones and you will be less likely to sustain an injury. Cold muscles are less flexible and injure more easily. Cold muscles and tiredness together are a recipe for injury.
- It is also important to take time to cool down for a few minutes at the end of class as it will give you time to recover physically as well as consolidate your learning.

Posture and Breathing

Pay attention to your posture during a warm up.

Bring your weight forward toward the balls of your feet. Imagine you have little marshmallows under your heels. Then feel your tailbone hang toward the floor and balance your hips, ribcage and head on top of each other. To keep your body stable, think of drawing your abdominals softly toward your spine and slide your shoulders gently down your back.

Take some deep slow breaths and keep your breath moving rhythmically as you warm up. You may find yourself holding your breath as you dance, this will make you less co-ordinated and more rigid in your movements. Your muscles need oxygen to move freely and fluidly, so breathing properly while you dance is essential. If you learn to breathe when you move you will also have more stamina for demanding routines.

Once you have established good posture and you are breathing rhythmically you can start warming up your joints. You may want to choose music with a steady beat to warm up to. We will be working from the feet up through your body.

The Ten Step Warm Up Routine

1. **Feet:** Point, flex and circle each of your ankles 5 times.
2. **Rise and lower:** Stand with both feet in parallel and rise onto the balls of your feet. Lower your heels but remember to keep those “marshmallows” under your heels. You do not want your weight to rock backward and forward as you dance. Using the image of marshmallows under your heels will help to keep you centred and on balance. Do this 5-8 times.
3. **March on the spot:** Lift your knees up in front of your body 10 times and then gently spring from foot to foot and kick your heels up towards your bottom 10 times. Repeat this sequence 2-3 times.
4. **Leg swings or knee lifts:** Gently swing one leg backward and forward. You may need to hold onto a chair or wall for this. Repeat 8 times and then repeat with the other leg. Try increasing the height of the leg gradually to get a dynamic stretch through the hip joint.
5. Alternatively do knee lifts to the front, side and back to medium height.
6. **Shrug your shoulders:** Shrug them up and down. As you lift your shoulders imagine inflating them like balloons and then as they come down think of your shoulders deflating and your collarbones smiling across to the walls of the room. Repeat 8 times.
7. **Roll each shoulder:** Roll shoulder round 5 times forwards and then backwards. Repeat the rotation adding first one arm and then the other arm. Circle the arm around 5 times in each direction.
8. **Rotate your torso:** Stand with your feet slightly further apart and gently rotate your torso from side to side, keep your arms really relaxed and let your head move with the body. Repeat 5-8 times each side.
9. **Turn your head from side to side:** Imagine you are painting a line across the front of the room horizontally. Repeat 5 times each side. Now lower your head forward and then back to the start position 5 times. Try not to extend the neck backward too much as this can often cause a lot of discomfort. Think of lengthening the back of your skull toward

an imaginary wall. The neck is a very fragile structure and you want to be sure not to do any sharp movements in this area of your body during your warm up.

10. Roll down through your spine: Standing up straight, imagine you are peeling yourself off a wall like a piece of wallpaper. Start from your head and slowly roll forward making a C-curve in your spine. Bend your knees a little, so you do not put too much strain on your hamstrings. If your back is really stiff, do not roll down all the way. Roll up and then slowly roll down again. Each time you repeat this movement you will be able to get down a little further. There should not be any pain when doing this exercise. Make sure you keep drawing your abdominals in toward your spine as you roll through your spine. Using your abdominals protects your back. Repeat 3-5 times.

11. Jog on the spot: Gently jog on the spot until you feel a little warm and sweaty and get just slightly out of breath.

Now you are ready for your dance class. You could now do some gentle stretching before you dance. You will stretch again after your cool down, to stretch out used muscles.

Summary: What are the benefits of a warm up?

An appropriate warm up will result in an increase in performance by:

1. Increasing the speed of contraction and relaxation of warmed muscles
2. Reducing muscle stiffness
3. Achieving economy of movement. Warm muscles are more efficient when producing movement
4. Increasing blood flow through active muscles, tendons and ligaments due to increased muscle temperatures
5. Enabling oxygen to be more easily utilised and released at higher muscle temperatures
6. Facilitating the nerves to transmit information to the muscles more easily, making it easier for your body to perform the movements you ask it to

Cool down

The cool down is critical for dance and long term fitness participation. Warm up is the step between rest and activity, while cool down is the step from activity to recovery. The cool down is largely neglected when participating in physical activities, but it makes it possible to gradually slow down and reduce muscle soreness and injury risk.

Stopping abruptly after exercise leads to the blood pooling and contributes to muscle soreness, cramping and loss of stamina.

It is important to maintain light activity and gently stretch after class to help your body recover from exercise.

Cool down is also a time for you to reflect on what you have learnt. It is an opportunity for you to take notice of the positive changes in your body.

A basic cool down programme should consist of the following:

- 2 minutes jogging/walking to decrease body temperature and remove waste products from the working muscles, and
- 5 minutes of gentle stretching exercises, which will help decrease body temperature and increase range of movement.

Effective stretching is very individual and it is important to stretch the muscles that need to stretch rather than the ones that are already flexible. This will reduce the risk of developing an imbalance that may lead to injury. Slow gentle stretches done at the cool down stage help muscles to relax.

Basic Stretch Routine

1. **Calf:** Stand with your feet on the edge of a step or low ledge and gently hang your heels off the edge of the step. Maintain good posture and breathe slowly for 5 breaths. Repeat again.
2. **Hamstring:** Place your heel on a chair or step that is about 60-70cm high. Keep your leg straight in front of you and your hips square. Gently hinge (bend) forward from your hips and take 5 deep slow breathes. It is tempting to curve your spine as you hinge forward, but try and keep your spine as straight as possible and your shoulders relaxed. You should feel a stretch at the back of your leg. Repeat twice on each leg.
3. **Thigh:** Hold onto a wall or chair with one hand and stand with your legs together and parallel. Bend you knee and lift your heel towards your bottom and grasp hold of your ankle with your free hand. Lengthen your spine and keep your thighs gently pressed together as you stretch the front of your thigh. Breathe deeply 5 times and repeat twice on each leg.
4. **Spine:** Roll down forwards through your spine. Imagine you are peeling yourself off a wall like a piece of wallpaper. Start from your head and slowly roll forward making a C-curve in your spine. Bend your knees a little so you do not put too much strain on your hamstrings. If your back is really stiff, do not roll down all the way. Roll up and then slowly roll down again. Each time you repeat this movement you will be able to get down a little further. There should not be any pain when doing this exercise. Make sure you keep drawing your abdominals in toward your spine as you roll through your spine. Repeat 3-5 times.
5. **Feet:** If your feet are a little swollen or sore from dancing, you can roll your feet on a spikey ball or rubber ball. Alternatively freeze some water in a 500ml plastic bottle and

give yourself a treat when you get home. Roll your feet on the bottle for about 5 minutes each. You can also release your lower legs by using the resource on the DANZ website: [Releasing your lower legs](#), using a tennis ball.

Summary: What are the benefits of a cool down?

An appropriate cool down will:

1. Aid reducing muscle soreness
2. Reduce the chances of dizziness or fainting due to suddenly stopping movement
3. Reduce the level of adrenaline in the blood

Our writers:

Brian Jones

Brian is a choreographer, performer, and experienced dance teacher who has run his own studio. He lectures in tertiary institutions, teaches privately and works in commercial dance. His work covers ballroom, Latin, jazz and musical theatre. He appeared in Dancing with the Stars in 2006 and 2008 and was Assistant Dance Advisor for DWTS in 2009. He has performed with SkyCity Starlight Symphony and has been guest at Dance your Socks Off, TEMPO and other dance events. Brian teaches on the DANZ LEOTC Education programme for schools and has tutored several DANZ workshops.

Tania Huddart

A studio dance and Pilates specialist based in Wellington, Tania started her career as a dance teacher working in South Africa and Europe. She studied dance at the University of Cape Town initially and later gained a philosophy degree from the University of Durham, specialising in dance. Tania taught ballet at studio and vocational levels in South Africa, London (Arts Educational School), Stockholm and Wellington (Wellington Performing Arts Centre). Her interest in how the body works, led her to study Pilates in London and New York and she is certified through the Pilates Method Alliance.

Tania returned to Wellington to form the Hearts and Bones Pilates Centre© in 2002 and she provided Pilates training as part of the health team at the New Zealand School of Dance from 2003-2006. She also works in teaching practice, injury rehabilitation and performance enhancement for dancers for a variety of dance syllabus organisations and studios. She has designed and tutored the DANZ Perfect Performance programme for the past four years using a wide range of techniques that include visualisation and Pilates.

About DANZ

Dance Aotearoa New Zealand is the service organisation for the New Zealand dance industry. It provides resources, workshops, forums and publications (DANZ Quarterly magazine) to assist the development of New Zealand dance. For additional resources relating to best practice and health go to the DANZ website resources tab.