



## OUR CENTRE LOCATIONS

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## NEWS FROM COASTLINE CHIROPRACTIC

### CENTRE

Now available: **Pondera Balance**,

Dynamic Visual, CogFit(C) Neurological

Testing, Motion Guidance Tracking (C) & Virtual

Reality with Neuroemersiv, with BRAINSTORM

REHABILITATION.

Your **REFERRALS** and **RECOMMENDATION**

are greatly appreciated. **THANK YOU!**

### Dr Darren J Gray

Chiropractor, Certified Rehab Therapist

*BSc, MChiro, MClinRehabNeuro (MCAA, ClinFellIAAFN)*

### Dr Melinda Burke

Chiropractor

*BChiropractic, MastChiropractic*

**Port Macquarie**

**Monday–Saturday**

**Wauchope**

**Tuesday and Wednesday**

*We attempt to cater for same day*

*appointments, however forward booking your*

*appointments is always recommended to*

*avoid disappointment.*

# YOUR CHIROPRACTOR

JULY/AUGUST 2024



**GLUTE-JOINT CONNECTION**



**IMMUNITY BOOSTERS**



**WRIST ANATOMY & HEALTH**



**TIGHT CALF MUSCLES**

## Inside the spine: exploring its anatomy and functions

Your spine is an extraordinary feat of biological engineering, designed to move, support, protect, weight-bear, absorb shock, and more. Understanding this intricate marvel helps you know your body better.

### Spinal regions

The spine has five regions: cervical, thoracic, lumbar, sacral, and coccyx.

- The cervical section, or neck, comprises of seven bones.
- The thoracic section, or middle back, consists of twelve bones, each with two attached ribs.
- The lumbar section, or lower back, has five bones.
- The sacrum sits under the lumbar spine between your pelvic bones. It typically consists of five fused bones.
- The coccyx, or tailbone, contains up to four bones, sometimes completely fused.

Each spine bone is called a vertebra, and the vertebrae in each region are given a number. For example, most people have five bones in the lumbar region named L1, L2, L3, L4, and L5. L1 is the uppermost lumbar vertebra, and L5 is the lowermost vertebra. This numbering is for identification purposes, used to identify and record "problem" spots accurately.

### Vertebral shapes

Each vertebra in the spine has a distinct shape that corresponds to its specific function. For example, the first cervical vertebra (C1) is ring-like with a hole in the centre. In contrast, the tailbone is triangular. These structural differences enable your spine to support a range of movements and functions.

The cervical, thoracic, and lumbar vertebrae have a thick, solid section at the front called the vertebral body, which supports most of your body's weight. Two bony "arms" extend from the vertebral body and connect at the back, forming a space for the spinal cord. Small holes on the sides

of the vertebrae allow nerves to exit from the spinal cord, enabling communication between it and the rest of your body.

### Spinal discs

The cervical, thoracic, and lumbar bones have an intervertebral disc (IVD) between them, with the exception of C1 and C2.

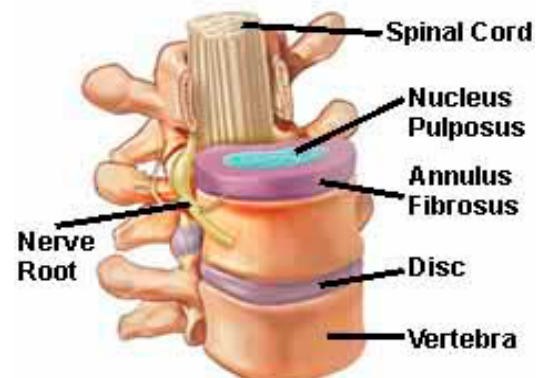
The IVD is a rubbery cushion with a softer inner and tough outer section. The disc connects vertebrae, allows safe movement, absorbs shock, and helps your spine to work well. Additionally, some people have discs between the sacral and coccygeal bones.

Long and short ligaments connect the vertebrae, while long and short muscles, which are primarily responsible for the movement of the spine, allow for bending, twisting, and other movements.

### Spinal injury and care

Some spinal areas are more difficult to damage and treat due to anatomical differences and location. For instance, the thoracic region is less prone to injury compared to the lumbar region because the ribcage provides stability and protection. Conversely, treating the coccyx can be more complex because it's very small and situated in a difficult-to-access area. Please feel free to reach out for more information - spine health is our passion!

**Explore the elements of your spine and gain insight into how it supports your body.**



*Our newsletter is free - please take a copy with you*

# Boost your immunity with nature's superheroes: winter fruits and vegetables

Winter in Australia often brings chilly winds and illnesses such as colds and flu. However, we're fortunate to have an abundance of incredible fruits and vegetables that can boost our immune systems and help combat infections. Let's meet five of these winter superstars!

**Citrus fruits:** such as oranges, mandarins, lemons, and grapefruit are high in vitamin C, which offers numerous health benefits. Vitamin C acts as an antioxidant, which helps protect your body against damage. It also aids the function of various white blood cells, which are an important part of your body's immune system response. Consume foods high in vitamin C daily, as it doesn't stay in your body for long.

**Sweet potatoes:** These hearty root vegetables are not only delicious but also packed with nutrients. They're a great source of beta-carotene, which your body converts into vitamin A, crucial for supporting immune function. Sweet potatoes also provide vitamin C, fibre, and antioxidants.

**Broccoli:** This nutritious vegetable contains significant amounts of vitamins A, C, and E, as well as

dietary fibre. Vitamins E and C are effective antioxidants which can aid in protecting your body against bacteria, viruses, and other germs.

**Spinach:** This leafy green is a nutritional powerhouse, packed with vitamins A, C, and E, as well as beta-carotene and antioxidants and folate. These nutrients work together to strengthen your immune system, fortify your body's defences, and promote overall health.

**Garlic:** Not only does garlic add an aromatic touch to your cooking, but it also serves as a potent immune booster. Packed with sulphur-containing compounds, garlic possesses antimicrobial properties that can help fend off infections. It may even contribute to reducing the severity and duration of colds. So, feel free to include garlic in your recipes – your immune system will appreciate it.

These are just five examples of the wide array of fruits and vegetables that provide essential vitamins, minerals, and antioxidants to strengthen your immune system and fight infections. Eating a colourful variety of nutritious fruit and vegetables daily is not only tasty, but also an effective way to support your health.

## 3 simple tips to add vegetables to every meal

**1** Get creative: experiment with lesser-known vegetables like swedes or parsnips, incorporating them into your meals.

**2** Begin your day well: include spinach or kale in your breakfast smoothie or omelette, or a salad with your egg dish.

**3** 'Hide' some vegetables: grate or process cauliflower to use as a rice alternative, or as a thickener instead of flour in casseroles and sauces.



## WORD SEARCH

- ANTIOXIDANTS
- ARTHRITIS
- BROCCOLI
- CARPAL
- CERVICAL
- COCCYX
- DIABETES
- ERGONOMICS
- EXERCISE
- GAIT
- GARLIC
- IMMUNITY
- INFLAMMATION
- LIFESTYLE
- LIGAMENT
- LUMBAR
- MOBILITY
- MUSCLES
- NERVES
- NUTRIENTS
- PELVIS
- POSTURE
- RSI
- SPINACH
- STRESS
- SWELLING
- VEGETABLES
- VERTEBRAE
- VITAMINS
- WRIST

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## Wrist essentials: structure, function, and common injuries



Your wrist is a complex joint composed of many bones, cartilage, and ligaments, which together enable a wide range of movement. Try rotating your hands to see how flexible your wrists are!

### Wrist structure

The wrist's structure allows flexibility for daily tasks while protecting vital nerves, blood vessels, and muscles. This protection is provided by bones and ligaments forming a secure framework.

The wrist has eight carpal bones in two rows: one near the forearm and one near the hand. Ligaments connect most of the wrist bones, providing flexibility, strength, and stability. Cartilage absorbs shock and reduces friction during movement.

Muscles that move the wrist start in the forearm and attach to the hand and fingers. A broad ligament secures the tendons of these muscles, maintaining alignment during wrist movements.

### Why wrist injuries can occur

Despite your wrist's clever structure, it's still vulnerable to various injuries. Trauma, lifestyle, and underlying medical issues can all contribute to wrist problems.

- Sprains, strains, fractures, and cartilage tears are usually caused by falls or activities where your wrist bears the brunt of the impact.
- Lifestyle factors include smoking, lack of exercise or stretching. Additionally, overuse or repetitive activities involving your wrist can cause repetitive strain injury (RSI), resulting in swelling, pain, stiffness and weakness over time.
- Underlying issues can include autoimmune disorders, arthritis and diabetes.

Carpal tunnel syndrome, for example, is a common wrist condition with several contributing factors. Inflammation causes swelling in the wrist and compresses the median nerve, leading to pain, numbness, and tingling in the fingers. This condition is often worsened by repetitive hand movements such as typing.

Maintaining good wrist health involves adopting healthy lifestyle habits, using proper ergonomics, and adjusting how you perform activities. If you need advice on preventing or treating wrist problems, feel free to ask us.

## The causes and complications of tight calves

Do you have tight calf muscles? When they're tense, you might feel cramping, pulling, or tightness. Though discomfort is common, tight calves usually aren't painful. However, they can still hinder foot, leg, and overall body function.

The calf muscles connect the thigh bone to the heel and aid leg movement. When they contract, they bend the knee and point the toes downward. Tight calf muscles restrict these movements, making it harder to lift the toes and straighten the leg.

Many factors - not all well-known - can cause tight calves. Issues like reduced blood flow, nerve problems, overexertion, dehydration, poor physical condition, and flat feet may increase the risk. Nutrient deficiencies such as low magnesium, potassium, or calcium levels, along with biomechanical issues like an irregular gait, can also contribute to tight calf muscles.

Tight calves affect more than just your calves. They limit ankle mobility crucial for activities like walking, increasing the risk of foot, heel, and ankle issues. Additionally, tight calves impair weight distribution while walking; affecting balance and gait, even without pain.

The good news is that there are ways to treat tight calves. A five-minute massage to each calf muscle can improve flexibility. You can knead the muscles with your hands or roll your calves back and forward over a foam roller.

Stretching your calves provides numerous benefits, such as improved flexibility, balance and stability, better ankle mobility, stronger lower legs, and reduced risk of injury. Ensure you warm-up beforehand; and get professional advice to determine the most suitable stretches for your needs and how to execute them safely.

Remember, overstretching or using improper technique can increase the risk of injury. If you're struggling with tight calves, we can investigate the causes and offer personalised guidance to help alleviate tightness and keep you safe from injury.



## Easy sweet potato hash browns

Serve these crispy sweet potato hash browns as a delicious and healthy snack or meal for any time of the day.

### Ingredients

- 2 medium-size sweet potatoes, peeled and grated
- 1 small onion, finely chopped
- 2 tbsps olive oil
- ½ tsp paprika
- ½ tsp garlic powder
- Salt and pepper, to taste
- Garnish: fresh parsley, coriander, or microgreens

### Instructions

1. Place the grated sweet potatoes in a clean paper towel and squeeze out any moisture.
2. In a large bowl, combine the grated sweet potatoes, onion, paprika, garlic powder, salt and pepper. Mix well.
3. Heat olive oil in a large frying pan over medium heat.
4. Take a handful of the mixture and shape it into a patty, pressing it firmly. Place carefully into the hot oil, and then repeat, leaving some space between each one.
5. Cook the hash browns for about 3-4 minutes on each side, or until they turn golden brown and crispy. Once cooked, transfer them to a plate lined with paper towels to absorb any excess oil.
6. Repeat the cooking process with the remaining sweet potato mixture, adding more oil to the pan if needed.

### Serving suggestions:

Top with baby spinach leaves, poached eggs and garnish of choice. Serve with a fresh baby spinach, tomato and feta salad, or chopped avocado and yoghurt dip.



## APPOINTMENT REMINDER

Your next appointment is on \_\_\_\_\_ at \_\_\_\_\_  
Date Time



## How strong glutes support healthy joints

Strong glutes are essential for more than just gym buffs. Discover more about these muscles, and how they support overall joint function and mobility.

### What are your glutes?

This nickname refers to the gluteus minimus, medius, and maximus muscles, often called the bottom muscles.

The gluteus maximus is the largest of the three and the strongest muscle in your body. It stabilises your hip and extends and rotates it when needed, and supports the correct position of your leg.

Together, these muscles help keep you upright by fighting gravity, enabling correct leg movement, and stabilising your pelvis and body. Strong glutes are crucial for functional movements like squatting and bending, everyday activities like walking, and sports like cycling. They also support the proper functioning of other joints.

### Why are glutes important for joint health?

Joints need to move freely to avoid stiffness or injury, relying on muscles for stability and proper function. Inadequate glute strength may result in a range of issues, potentially leading to discomfort and pain. These include:

- pelvic and lower back instability and imbalance
- incorrect hip movement and strain on hip joints
- increased stress on knees
- poor posture, resulting in widespread muscle strain
- restricted hip mobility, affecting overall flexibility and movement.

Strengthening the glutes can help address these issues by providing support and stability in the hips, pelvis, and lower back. Before trying these exercises, ask us if they're suitable for you and how to perform them safely. We're here to help!



### The Single-Leg Bridge targets the gluteus minimus and medius:

Lie on your back with your knees bent and feet flat on the floor.

Lift one foot and extend that leg to a 45-degree angle.

Raise your hips while tightening your core and buttocks.

Hold briefly, lower your hips back to the starting position.

Switch legs and repeat. Do 5-10 repetitions on each side.



### The Bird-Dog Exercise is excellent for the gluteus maximus:

Start on all fours with your hands and knees on the floor.

Extend one arm forward and the opposite leg backward, keeping your hips level and core engaged.

Hold briefly, return to the starting position.

Repeat on the other side. Do 5-10 repetitions on each side.

### ON ARRIVAL AT THE PRACTICE

Please see the receptionist upon arrival.

This eliminates the possibility of you being overlooked and enables us to have your information ready.

### APPOINTMENTS

Your appointment schedule is designed specifically to obtain the best possible results. Should you wish to change an appointment, we would appreciate as much notice as possible so that other patients can be offered your time.

### ONLINE BOOKINGS

We have online booking available. Make your appointment with your favourite chiropractor by booking through

[coastlinechiropractic.com.au](http://coastlinechiropractic.com.au)

### PAYMENT FOR SERVICES

Prompt payment of your account will help us keep the fees down. However if you are experiencing difficulties with payment at any time please arrange a confidential meeting with our accounts person.

### OUR COMMITMENT

This practice is committed to providing the best possible care to all patients. Our staff regularly attend short continuing professional education courses to update their knowledge and techniques.

Disclaimer: The information in this newsletter is not intended to be a substitute for professional health advice, diagnosis or treatment. Decisions relating to your health should always be made in consultation with your health care provider. Talk to your chiropractor first.

*Our newsletter is free - please take a copy with you*