

Wrist assessment

BeanScene explores the physical challenges of barista work and discovers why prevention is the best form of medicine.

When we think of physically demanding jobs, labourers, fire fighters, lumberjacks, and farmers come to mind. But spare a thought for baristas. Just because they don't appear to be lifting large volumes of bricks or covering hundreds of kilometres a day, doesn't mean their work isn't taking its toll.

Each week, baristas spend hours on their feet – grinding, tamping and serving coffee. Most are exposed to awkward hand movements and excessive force through their wrists, forearm, elbow and back.

According to the Australian Government Australian Safety and Compensation Council, hand and wrist injuries are the most common work-related injury type. They account for one third of all workplace injuries, and result in about 8400 hospital admissions each year, of which 3.3 per cent are specific to the café, hotel and restaurant industry. The injuries range from being relatively minor to very severe, with open wounds the most common, followed by superficial wounds, burns, crushes, sprains and fractures.

Karen Fitt, Director of Melbourne Hand Rehab and President of the Australian Hand Therapy Association, says baristas make up many of the hospitality workers that have visited her clinic over the years. She says the most common barista-specific practices that lead to injuries include:

- Manual tamping
- Putting the portafilter into the group head with force
- Whacking the coffee puck out of the group handle
- Tight grip

“Baristas are accustomed to awkward non-neutral postures and manoeuvres that predispose them to injury. Their work can be very taxing on the body,” Karen says.

Manual tamping is one of the most significant causes of injury. Karen says it has been shown to cause shoulder and back pain as a result of a barista's



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awkward shoulder posture – in front of the body with elbow bent and excessive force directed through the wrist as they press into the tamp. She says the action of putting a portafilter into a grouphead can also lead to injury because it involves using “a supinated, or awkward palm-up posture” opposed to a midline forearm.

“It's not a neutral position for the forearm and at its end of range can cause strain and pain,” Karen says.

In a 2014 study titled *Prevalence of occupation-related pain among baristas*, it describes an examination of low back and shoulder demand during the preparation of espresso-based beverages.

The prevalence of low back pain (LBP) and shoulder pain was studied via questionnaire among 59 Canadian baristas. Ten were video-recorded for biomechanical analysis while making espresso, and cumulative and peak low back loads and shoulder moments were calculated.

Seventy-three per cent of those who completed the questionnaire reported having experienced LBP, and half attributed this pain to their job as a barista. Sixty-eight per cent reported having experienced shoulder pain and half also attributed this pain to their job. In addition, 79.7 per cent of respondents experienced pain in their feet, with standing identified as the second most commonly reported activity of baristas to cause pain, second to lifting. Some baristas also reported neck, upper back, wrist, elbow and knee pain as a result of their work.

Bowen Holden of Patricia Coffee Brewers in Melbourne relates to this strain. After 15 years working behind a coffee machine, Bowen hates to think of the thousands of hours he's spent standing on his feet, and the amount of times he's manual-tamped ground coffee. He's experienced his fair share of workplace “niggles”, but when a shoulder injury flared up – not entirely a result of barista work – the thought of using his body to manual tamp every day was almost enough to see him sidelined from the profession he loved.

“Barista work is repetitive. It's not a job many people consider to be physically demanding, but when you're busy intensity builds, you tighten up, and your movements become heightened and rushed. All that self-awareness of how to look after your body and use correct practices goes out the window,” Bowen says.

More commonly, barista work tends to cross over into other actions and activities such as lifting, tray or plate carrying. If done regularly, it can also lead to elbow and wrist pain as a result of excessive weight and non-neutral carrying positions.

According to a Safe Work Australia report, injuries and illnesses between

2010–11 and 2012–13 found body stressing led to the highest proportion of serious claims in the workforce. Nearly half of all body stressing disorders arose from muscular stress while lifting, carrying or putting down objects, with injuries to the hand, fingers and thumb the most common that led to serious claims. Safe Work Australia records around 7000 serious body-stressing claims per year.

The Australian Work Health and Safety Strategy 2012–2022 has identified the accommodation and food services industry, which includes baristas, as a priority to reduce the high number of work-related injuries and illnesses. The Strategy aims to reduce the incidence of serious injury by at least 30 per cent nationwide by 2022, and says the accommodation and food services industry will play a critical role in meeting this targets.

Karen of Melbourne Hand Rehab says it's important for workers to speak up about their pain, and for employers to create a safe environment for their staff to discuss their symptoms.

"No one should feel ashamed to admit they're feeling sore as a result of their work. 'I'm sore' is not an injury. 'I'm sore' is not a reason for employers to fear a Workers Compensation Claim. It's just about opening up the dialogue of conversation so that a solution can be addressed," Karen says.

"Those new to the barista profession need to be aware they are putting an increased load on their body. In those

first few weeks, new employees are less likely to speak up but they're the ones that need to build their endurance. If you've never done the work before, of course you'll feel strain, your body is not used to non-neutral positions, just as a non-runner would feel aches and pains after their first few runs. You need to build up slowly to achieve the longer distance."

Prevention however, is the best cure. Aside from regular stretching, see examples below) Karen says there are simple ways to make effective changes in your workplace. This includes adjusting the height of a workstation so baristas don't have to over or under-extend their posture with the rotation of their trunk and neck over a long period.

Karen says many people associate sitting to be "the new smoking" but standing for long periods of time can also result in leg and back pain. She recommends moving around every 10 to 15 minutes for 30 seconds to stop work-related aches and pains in their tracks before they turn into injuries.

The most effective treatment, Karen says, is being aware of the dangers of force, remove the stress, and work in more neutral positions.

"Most musculoskeletal injuries, strains and pain to the shoulder and wrist respond really well to ergonomic advice and won't be a long-term problem," she says. "If you suffer from elbow pain, however, make sure you get it seen by a health professional straight away as elbow injuries can be slightly

degenerative.

Karen recommends the following solutions:

- Be aware if you're gripping the group handle tightly and loosen the grip
- Rather than wrenching your wrist sideways to lock your portafilter into the group head or tapping the puck out of the portafilter, perform the action a little more slowly and use minimal force.

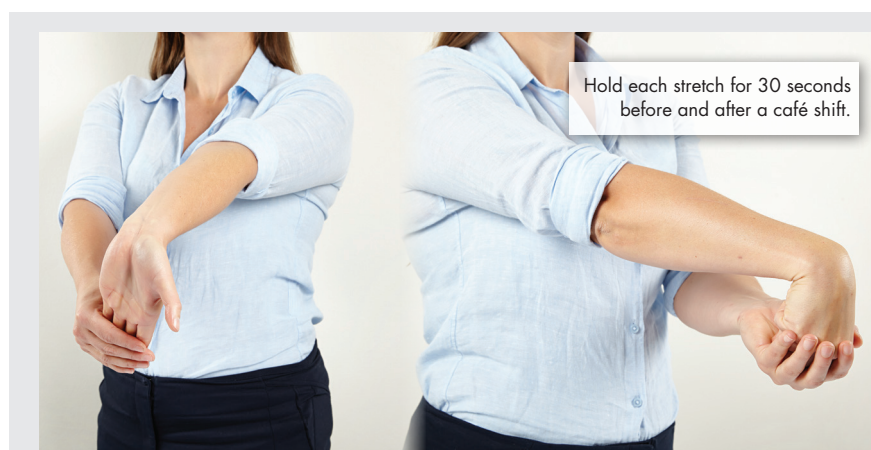
- Try changing the position of your wrist, such as holding the group handle with the side of your wrist, not palm up or palm down.

- To manual tamp, use your whole body including your trunk and arm to perform the movement and step into the action with your front leg. Leaning transfers weight within the body so it's not localised to one position.

To avoid the injuries associated with manual tamping, automatic tamping device, Puqpress has become a popular option for cafés across the country.

Puqpress was first launched in 2015, and in the past two years has proved its consistency with more than 2500 devices to be installed throughout Australian cafés by November 2017. But more than its consistent pressure, CEO of Australian distributor Barista Technology Australia, Brett Bolwell, says consumers want to purchase the device to protect their staff.

"We're seeing the second wave of the Puqpress due to its health benefits. Under Work Health and Safety legislation, employers have a legal responsibility and duty of care to look



STRETCH AND STRENGTHEN:

Karen recommends doing these stretches every day at the start of a shift to warm up your forearm, and at the end of the day to cool down. Hold each stretch for 30 seconds.

Prevention and action

Get a physiotherapist or occupational

therapist to visit your workplace and perform a worksite assessment. They will assess posture and work environment and provide suggestions of ways to work safer and avoid injury.

"Sometimes all you need is an ergonomic eye to look at the way a barista stands or turns their body as

they manoeuvre themselves around a machine, to make a positive change," Karen says.

Alternatively, get a co-worker to take a photo of your standing posture behind the coffee machine and bring it to a physiotherapist or occupational therapist to assess .

No more RSI

According to Karen Fitt, "repetitive strain injury" is no longer common terminology in health professions because repetition is not the problem, it's doing the action incorrectly that is.

"[The out-dated catch phrase] often led to a generalised approach to diagnosis and treatment," Karen says.

These days we use more specific clinical testing to really pinpoint the problem spot and injured part so that the right treatment is given," Karen says.



after their staff and the Puqpress is one solution to eliminate the risks associated with manual tamping,” he says. “You can’t teach consistent manual tamping. Baristas have their own method of pressure and position. Rather, let the Puqpress do this for you and eliminate unnecessary stress and fatigue caused by manual tamping.”

Using the Puqpress, tamping pressure

is digitally adjustable from 10 to 30 kilograms of force. Brett says tamping the coffee is just one small component to achieving a perfect extraction. The rest is about getting the grind size right, which encourages the barista to be attuned to grinder inconsistencies.

Barista Technology Australia is the number one distributor of the Puqpress globally. Brett says the “big lead” is an indication that Australia takes the health of its baristas seriously.

“The response has been so large that the top McDonalds franchise in Australia is determined to see the Puqpress made compulsory in every McDonalds venue under the company’s OH&S department,” he says.

“Businesses see the potential. The Puqpress is making workflow more fluid and enjoyable for baristas because their job involves less strain. There’s nothing worse than having a product in your store contributing to workplace injuries. The health of your staff is far more important.”

Patricia Owner Bowen was about to stop pulling shots altogether when he found the Puqpress just in time.

“Using the Puqpress I automatically found myself standing in an upright

position rather than hunched over, which is great when you’re over six foot tall like me. It also gives us continual connection with customers so you can look up and talk to them, rather than look down.”

Bowen says some baristas can be attached to the “romanticised” idea of manual tamping, but it’s up to café owners and managers to make the workplace safe for their staff.

“Café owners need to consider the wellbeing of their staff. When you’re doing a high volume of coffee it makes sense to have your staff working in the most comfortable way,” he says. “I make sure my baristas are assigned to a different standing position in the morning and in the afternoon so they’re not fixed in the same spot. I also encourage them to keep moving, and at one point I even sent them to yoga.”

Bowen doubts he could ever do a sit-down job after standing in his profession for so long, but says at least he can use his experiences to educate others on achieving longevity in the barista field.

“I’m definitely more conscious of looking after my body now compared to when I first started in the industry,” he says. “The less stress the better.” **B**