

GetPhysical

# Bowling works out the mind and body

## Achieving consistency requires good body control and a sharp focus

**Ng Wan Ching**

Bowling is an easy activity, even for the sedentary type.

It is also a social sport suitable for all ages that helps to connect people, improve their social life and mental well-being, said Assistant Professor Benjamin Soon, who is in charge of a new physiotherapy programme at the Singapore Institute of Technology (SIT).

Mr Tay Ngiap Siang, who studies at SIT, began bowling as a young child as it was something his family did together. After sitting his O levels, he started taking the sport more seriously so he could bowl at a higher level. Today, he competes at the Singapore University Games.

Bowling at this level is mentally draining and requires high levels of concentration and focus.

Mr Tay experiments with different bowling shots to see which suits him best, then tries to repeat it consistently.

"Consistency is very important in bowling. It is also the most difficult thing to achieve," said the 23-year-old student of sustainable infrastructure engineering, who trains at the Singapore Polytechnic Graduates' Guild.

Bowling nurtures mental discipline and offers many other health benefits, said Prof Soon.

It improves flexibility and strength, in particular, of the shoulder and forearm, he said. Much practice is needed to bowl well and this indirectly improves a bowler's concentration and body awareness.

Older people who bowl regularly may also suffer fewer falls. An Australian study showed that simul-

ting the bowling action using the Nintendo Wii game console can improve balance and gait in the elderly, which could reduce the risk of falling, said Prof Soon.

**MUSCLES USED IN BOWLING**  
The bowling action requires a good amount of movement in the arms, back and hips. The bowler needs to control and balance his body on one leg, while focusing on the technical aspect of releasing the ball, said Prof Soon.

The muscles on the side of the hip (gluteus medius) on the balancing leg work to help control the body's posture. These muscles are also essential in daily activities such as walking and balancing, he said.

The bowler also needs to lean forward and bend the side of his torso briefly in order to release the ball.

This action helps to train the back muscles to support the body during the movement, said Prof Soon.

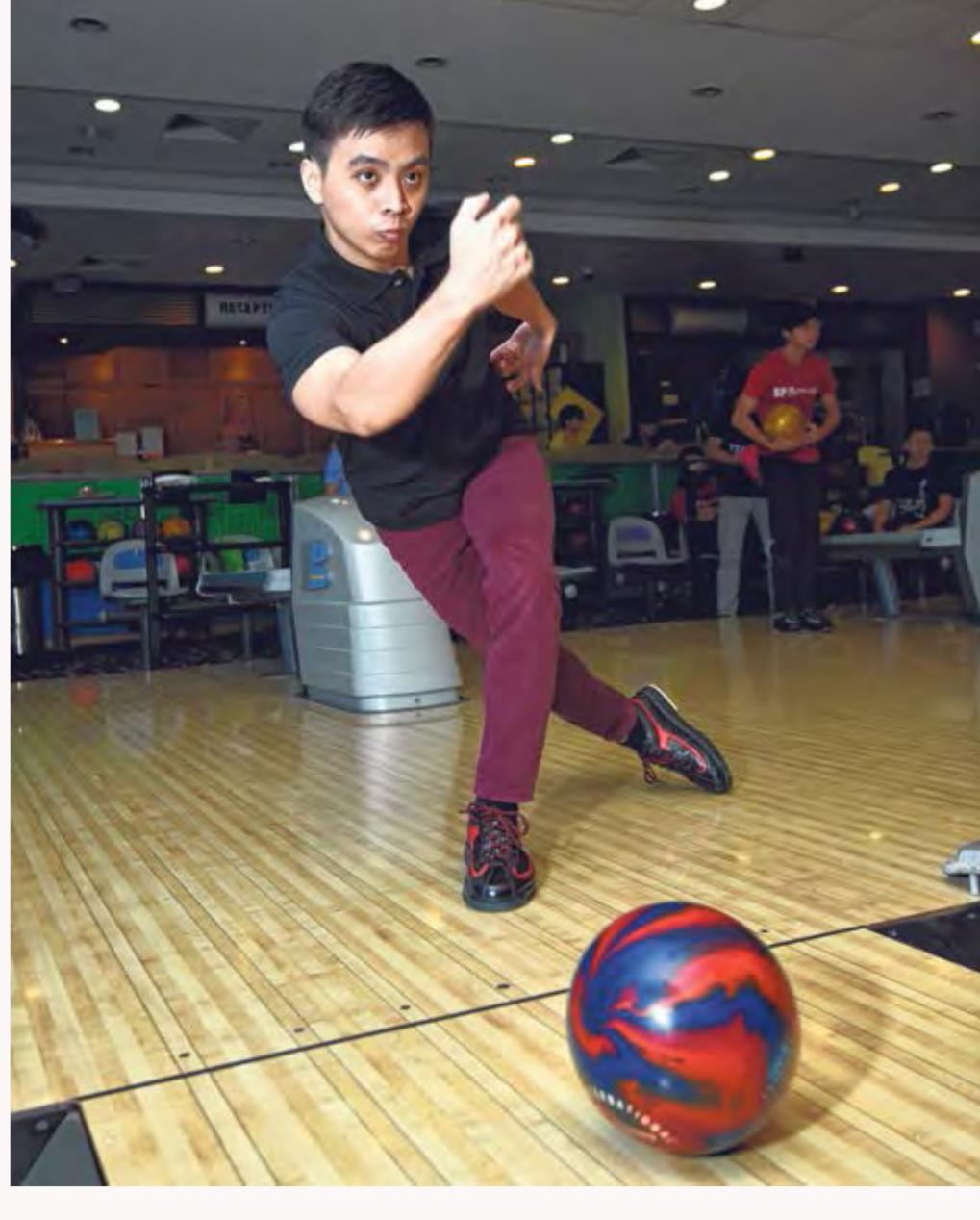
The swinging and releasing of the ball also improves the strength and range of motion in the arm and shoulder.

The main disadvantage of bowling, however, is that it works one side of the body. The other arm and hip may not get exercised the same way, said Prof Soon.

### WATCH FOR INJURIES

As bowling requires repetitive movement, the person risks straining the muscles and tendons in the arm performing the movement, said Prof Soon.

It is exacerbated when he uses a heavy ball and incorrect bowling techniques. Injury to the fingers and wrist are common, given that the muscles in these areas are used



Other than bowling, Mr Tay Ngiap Siang usually swims every weekend to keep himself fit. The time in the pool also helps him to strengthen the shoulder muscles that are vital in bowling.

PHOTO: DIOS VINCOY JR FOR THE STRAITS TIMES

meniscus is a rubbery, C-shaped disc that cushions the knee.

To avoid these injuries, do proper stretching exercises before bowling and allow time for the body to rest. This is especially if one experiences soreness in the muscles and joints of the arms and legs after a game, said Prof Soon.

Some stretching exercises one should do before bowling include:

- Side-to-side neck stretching.
- Shoulder stretching for the deltoids and triceps.
- Side bending for the torso.
- Side-to-side lunges for the hip.
- Forearm muscle stretching by flexing and extending the wrist.

After stretching, do a few practice bowls to start warming the muscles up, said Prof Soon. Also, cradle the bowling ball with both hands while moving it around instead of using the fingers to hold it. This reduces the stress on the fingers.

Using sports tape to support the wrist and fingers can also help to reduce the risk of overstraining the ligaments and tendons.

Finally, learn proper techniques from a qualified bowling instructor.

If you have pain and injuries from bowling, seek help from a trained health professional, such as a physiotherapist, said Prof Soon.

If one is thinking of getting fit, just bowling is probably not the way to achieve that goal. Mr Tay, for instance, usually swims every weekend to keep himself fit. It also helps him to strengthen the shoulder muscles that are vital in bowling.

But if you are generally inactive – or an older person looking for a relatively low-key activity – bowling is a great way to start getting some fitness, both physically and mentally, said Prof Soon.

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over and over to hold and control the ball, said Prof Soon.

The loading and twisting of the finger tendons can cause inflammation of the tendon at the base of the thumb, as well as the trigger finger,

he added.

Mr Tay once injured his ring finger ligament, which kept him from bowling for a few months.

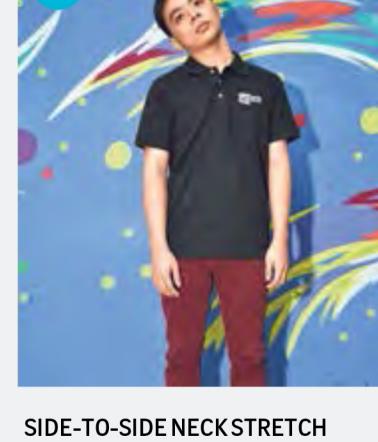
The bicep tendon, which goes into the shoulder joint, is also

prone to overuse injuries due to the repetitive swinging of the arm, said Prof Soon.

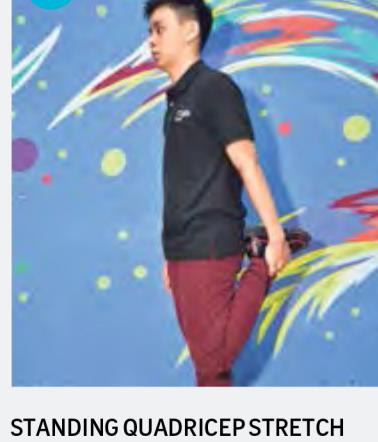
The twisting action that occurs in the knees during bowling may also hurt the meniscus, he said. The me-

## Try these moves

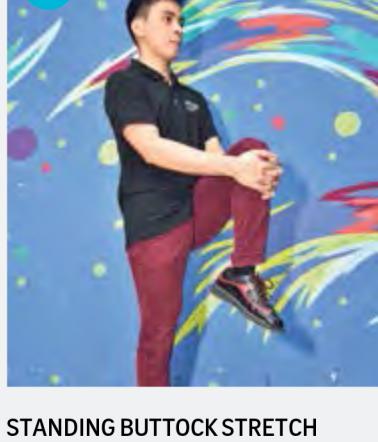
Competitive bowler Tay Ngiap Siang, 23, demonstrates stretching exercises you can do to limber up before bowling.



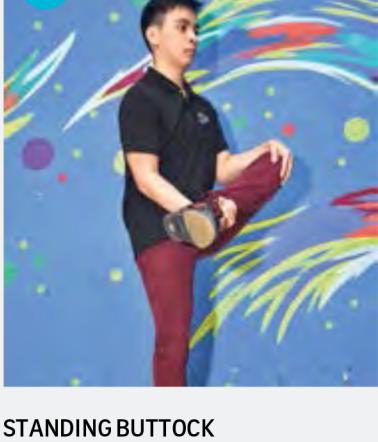
**SIDE-TO-SIDE NECK STRETCH**  
Stand upright. Look straight ahead and drop your head sideways by bringing your right ear closer to your right shoulder. Do not raise your shoulders during the stretch. You will feel a firm stretch on the left side of the neck. Hold the position for 10 seconds and repeat on the other side. This stretches the top part of the shoulders and neck muscles.



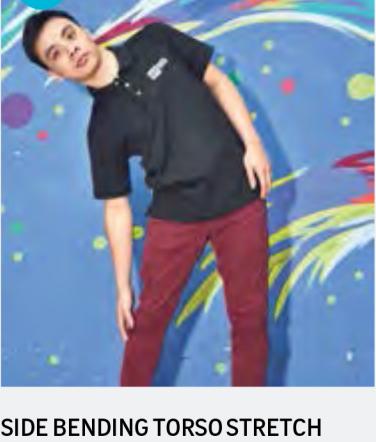
**STANDING QUADRICEP STRETCH**  
Stand upright. Bend your left knee so that your left ankle is lifted towards the back of the leg. Hold the left foot with your left hand while balancing on the other foot. Slowly pull the left foot towards your buttocks. Maintain an upright posture during the stretch. Hold the stretch for 10 seconds, switch legs and repeat. This stretches the thigh muscles.



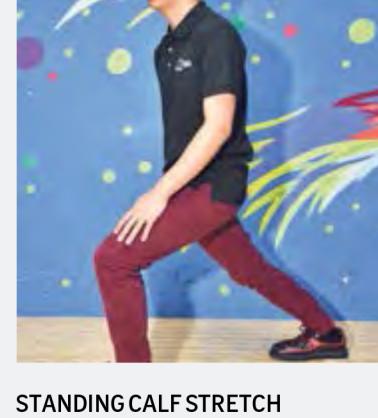
**STANDING BUTTOCK STRETCH**  
Stand upright. Lift your right leg upwards towards your abdomen. Do not bend your torso. Using both hands, firmly grip the shin of your right leg. Pull your right knee further up towards the body, while maintaining your balance and keeping your body upright. Hold the stretch for 10 seconds, switch legs and repeat. This stretches the gluteus muscles in the buttocks.



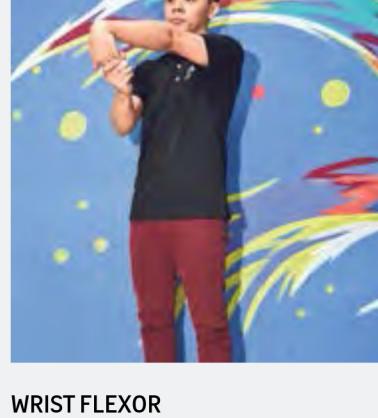
**STANDING BUTTOCK AND HIP STRETCH**  
Stand upright. Lift your left leg with the knee bent. Use your right hand to hold onto your left ankle and bring it up towards you so that your lower leg is parallel to the floor. Keep the body upright during the stretch and hold the position for 10 seconds. Repeat with the other leg. This stretches the hip internal rotators and the gluteus muscles.



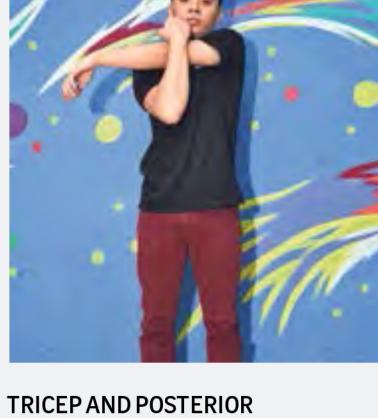
**SIDE BENDING TORSO STRETCH**  
Stand upright with legs shoulder width apart. Bend your body to the right by sliding your hand down the side of your right leg until you feel a firm stretch on the side of your left torso. Keep the knees straight during the stretch. Make sure you are not bending forward. Hold the position for 10 seconds and repeat on the other side. This stretches the abdominal oblique muscles.



**STANDING CALF STRETCH**  
Stand with one leg in front of the other in a forward stance. Bend the knee of the leg in front, while keeping the back leg straight. Make sure that both feet are pointing forward and the heel of the back leg is firmly planted on the floor. Rest your hand on the forward thigh. Keeping your back straight, lean forward slightly. You will feel a stretch on the calf in the back leg. Hold the stretch for 10 seconds. Switch legs and repeat. This stretches the calf muscles.



**WRIST FLEXOR AND EXTENSOR STRETCH**  
Stretch out your left arm with your palm facing down. Use your right hand to bend the wrist downwards by pulling down the left fingers. The back of your left palm should be facing forward. You will feel a stretch in your forearm. Hold the position for 10 seconds. Then turn your palm facing upwards. Use your right hand to pull the left fingers back. Your left palm should be facing forward. Hold this position for 10 seconds. Repeat on the other arm. This stretches the wrist flexor and extensor muscles in the forearm.



**TRICEP AND POSTERIOR DELTOID STRETCH**  
Pull your left arm across your chest by cradling the elbow in the crook of your right arm. Pull your left arm slightly towards you until you feel a firm stretch in your left shoulder. Hold the position for 10 seconds and repeat with the other arm. This stretches the tricep (back upper arm muscle) and part of the deltoid muscle in the shoulder.



**TRICEP STRETCH**  
Reach for your back by sliding your left hand down the back of your neck. Grab onto the elbow with your right hand and gently pull it back behind your head until you feel a firm stretch on the side of your left arm. Keep your body upright. Hold the position for 10 seconds and repeat on the other side. This stretches the tricep muscle.