

**I**NSTITUT Sukan Negara (National Sports Institute) sits in the shadow of the stadiums in Bukit Jalil, Kuala Lumpur.

It's the place where athletes come to train, to use the gym facilities as well as to seek treatment for their sports injuries.

Zulkepli Abu Samah, head of physiotherapy, oversees their treatment using various methods such as ultra-sound, heat treatment and Sonotron therapy.

"I treat national athletes with soft tissue injury such as in the tendons, ligaments, muscles and joints, basically the locomotive system which must be good to produce results.

"Normal people also suffer sprains or injury to the bone cartilage in the knee, ankle, hip and shoulder. For instance, a racquet player will suffer injury to the shoulder, elbow and wrists."

The athletes would have seen a doctor first who would refer them to Zulkepli.

"In the first two or three days they would be in acute pain. Sonotron therapy helps to relieve the pain and reduce the inflammation before we can proceed to the ultrasound treatment.

"The pain is due to free radicals when the tissues are damaged. Sonotron converts this into oxygen that's good for healing,"

says Zulkepli, who has been using this therapy in the sports centre since 1994.

"If I use ultrasound I have to wait till the inflammation subsides in two to three days, but there is suffering. To remove the pain fast, I use Sonotron. When the inflammation remains a long time, the injured knee, for instance, will become stiff and the muscle will weaken."

Sonotron is a non-invasive therapy that offers effective pain relief for such injuries, as well as for osteoarthritis, frozen shoulder, stiff neck, tennis elbow and sports injuries involving muscles and tissue swelling, among other conditions.

It is a patented device invented by Dr Alfonso Di Mino in the United States in 1987.

An electrode in the hand-held applicator attached to the machine produces a corona discharge beam through a low radio frequency of 430kHz, pulsed at a low sound frequency of 1kHz.

The beam is directed to the spot or area of difficulty above the skin of a patient. It's painless and all the patient may feel is a little heat.

I watched as Zulkepli applied Sonotron to a hockey player who had fallen during a game and injured his hand. The player thought the pain had



Zulkepli applying Sonotron therapy to a hockey player who had fallen during a game and injured his hand.

lessened after a 20-minute treatment.

After tackling the pain problem with Sonotron, Zulkepli prescribes exercises with that part of the hand, leg or shoulder that's been injured.

"Exercise therapy will stimulate the body sense and reflex system, and helps to strengthen and mobilise it.

"When you are running, the senses are important — the athlete knows his body in space. During injury the senses in the ankle and joint, for instance, are reduced."

The institute has two Sonotron machines, and also offers treatment to the public by appointment, but priority is given to the athletes.

Sonotron has also travelled with medical doctors, physiotherapists, masseuses, medical assistants and nurses to the Olympics in Atlanta, United States, in 1996, the SEA Games, the Commonwealth Games, and the Asian Games in Doha last December.

"We also use ice to reduce the swelling and pain of sports injuries but some athletes are allergic to it; they get rashes from it. Ice treatment is also contraindicated in the heart, chest and eye areas.

"We use Sonotron as it does not have any side effects," said Zulkepli who has used it on the national

# Pain goes away with Sonotron therapy

It is the first line of treatment for athletes suffering acute pain from sports injuries at the National Sports Institute. **EU HOOI KHAW** speaks to its head of physiotherapy.

badminton team, football and netball players.

He has 11 physiotherapists and nine masseuses working under him. Most of them are from Pakistan, Germany, Finland and China. The masseuses help out with recovery massages.

"After a hard day's training lactic acid accumulates and the massage helps to remove it. There is also a hydrotherapy pool where they can unwind and relax their muscles."

Zulkepli has used Sonotron therapy on his tennis elbow, with good results.

"I have had that for many years."

Ultrasound and interferential current therapy can also be used, but he explains that ultrasound is good for treating the muscle

but when it comes to the junction of the muscle with the bone, ultrasound gives pain.

Sonotron works well in the initial stage. It helps with soft tissue injury such as sprains, strain, contusion and bone fracture but you must do the necessary exercises after that to make sure there is no repeat injury."

Zulkepli has also discovered open wounds heal quickly with Sonotron. "When I have a cold, I use it and feel better after that. It's an alternative treatment and is non-invasive."

The centre opens daily from 8am to 1pm and from 2pm to 5pm. It treats all cases including children.

"We treat arthritis too with Sonotron," said Zulkepli.

Sonotron therapy is also available at Panmedic Sdn Bhd, A-3-12, Block

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