

# 'I didn't know young kids could get arthritis'



Ms Shermaine Chia was confused when she learnt about the arthritis diagnosis of her daughter Olivia Oh – then a toddler – as she thought the condition affected only older people. ST PHOTO: HENG YI-HSIN

**A condition called juvenile idiopathic arthritis can affect children as young as six months old**



**Amrita Kaur**

Olivia Oh was just two years old when she was diagnosed with arthritis in 2019.

It all started when her big toe on her right foot became swollen.

Initially, her parents thought she might have fallen and sustained a bone fracture as she had started learning to walk a few months ago.

"She was limping and refused to put on shoes when we went out. Even on hot days when we went to the playground, she would rather go barefoot," says her mother Shermaine Chia, a 38-year-old teacher.

A check-up with a paediatrician at a private clinic showed that Olivia, now aged seven, had juvenile idiopathic arthritis (JIA).

It is a chronic autoimmune condition in which the body's immune system attacks its own healthy cells and tissues, resulting in

inflammation in the joints. It can lead to pain, swelling, stiffness and reduced mobility.

The term "idiopathic" means that the cause of the arthritis is unknown. The condition can cause flare-ups, which refer to periods when the symptoms become more severe or suddenly worsen after a period of improvement.

Patients with JIA range from six months to 16 years old.

Ms Chia was confused when she learnt of the diagnosis. She had thought that arthritis was a condition that affected only seniors.

"I took out my mobile phone and asked the doctor to repeat the name of the condition so I could google it. I realised the symptoms matched Olivia's. I didn't know young kids could get arthritis," she says.

Olivia had polyarticular JIA, a sub-type of the condition, which means that she had inflammation in five or more joints, including her fingers, toes and ankles.

"As she was very young at the point of diagnosis, she could not articulate very well and often wanted to be carried," says Ms Chia, who is married to an IT consultant and also has a nine-year-old daughter.

Some children with JIA will also get inflammation of the eye.

Olivia has uveitis, which is when the middle layer of the eyeball gets inflamed.

She had a major flare-up in 2020, when she could not lie down nor get up from bed on her own. "She couldn't turn her head. Her move-

ments were very stiff and she was in pain," says Ms Chia.

Scans at the hospital showed that she had inflammation and fluid build-up in her neck and spine.

In addition to taking oral medication, Olivia uses steroid eye drops on alternate days and takes injections once every two weeks, which Ms Chia has learnt to administer.

The medications and injections suppress the immune system so it does not attack the joints and lead to inflammation.

"At the age of two, every injection was a struggle for her as she was afraid. My husband often had to grab her tightly in order for me to do the injection," she adds.

In Singapore, the average number of new patients with JIA is 5.8 in every 100,000 children yearly, says Dr Teh Kai Liang, a consultant at the Rheumatology and Immunology Service of KK Women's and Children's Hospital (KKH).

About 30 new JIA cases are diagnosed at KKH each year. The average age of onset of illness is about nine, says Dr Teh.

The prevalence of JIA is lower compared with adult-onset arthritis, says Dr Ooi Pei Ling, a paediatric rheumatologist at International Child & Adolescent Clinic in Gleneagles Hospital.

Adult arthritis, particularly osteoarthritis and rheumatoid arthritis, is more common due to factors such as ageing and wear and tear of the joints, she notes.

The most common symptom of JIA is joint pain or stiffness, which is typically worse in the morning or

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**MS SHERMAINE CHIA**, on her daughter Olivia Oh, who started showing symptoms of juvenile idiopathic arthritis when she was two years old. The chronic autoimmune condition causes the body's immune system to attack its own healthy cells and tissues, resulting in inflammation in the joints, and can lead to pain and swelling

after a period of rest and immobility, says Dr Teh.

Symptoms tend to improve through the day so it can be confusing for parents, notes Dr Ooi.

While seniors with arthritis might experience similar symptoms, children may not always articulate their discomfort clearly and may show it through irritability or reduction in interest to participate in activities.

They may limp, refuse to walk or have difficulties playing and performing daily activities, says Dr Teh.

There are several types of JIA, including oligoarticular JIA, which affects fewer than five joints, and enthesitis-related JIA, which affects the large joints and spine.

In Singapore, the most common subtype is enthesitis-related arthritis, says Dr Teh.

In addition to arthritis, patients with this sub-type may also get inflammation at the site of attachment of tendons or ligaments to the bones, resulting in significant pain, he says.

Jensen Si was nine when he was diagnosed with enthesitis-related JIA.

One month before his diagnosis, he felt stiffness and intermittent pain in his right hip. His parents thought it was growing pains that would eventually subside.

However, the pain radiated to his knee and, one morning, he was in so much pain that he could not walk.



# When inflamed joints make it too painful to move

FROM C1

Now 12, Jensen says: "I remember feeling scared and confused. I wondered if this would be a long-term issue and if I would still be able to play and run around with friends in school."

His mother, Dr Ester Yeoh, a senior consultant endocrinologist at Aspen Diabetes & Endocrine Clinic, took him to Dr Ooi. A scan showed that there was inflammation in his hip.

Dr Yeoh, 44, and her husband, a general practitioner, were devastated.

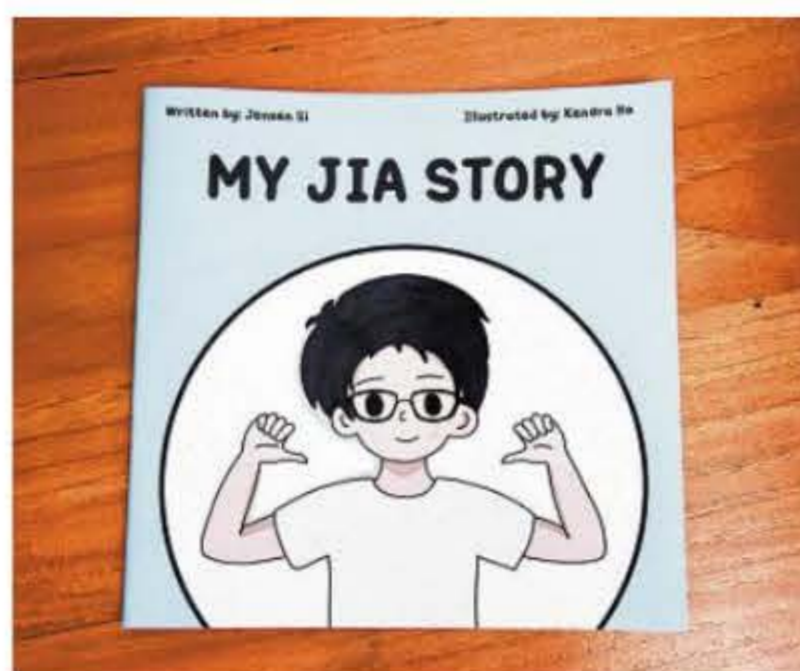
"My husband and I were aware that arthritis could occur in kids, but we didn't think it would happen to our child," she says.

Jensen started taking anti-inflammatory medication. Later, he was also prescribed injections to reduce inflammation and alleviate symptoms as he would still experience pain and stiffness in his hip from time to time.

He also underwent several sessions of physiotherapy to strengthen his muscles.

Several months after his diagnosis, Jensen experienced a flare-up. The joints at his ankles became inflamed, making them swollen and stiff, and it was difficult for him to walk.

Dr Ooi withdrew the fluid that had built up and administered an injection of corticosteroids into both his ankles.



Dr Ester Yeoh took her son Jensen Si (both above) for a check-up after the pain in his right hip became worse. The boy has written a book, *My JIA Story* (left), which delves into his condition.  
ST PHOTOS: HENG YI-HSIN

During flare-ups, Jensen had to resort to taking the lift in school instead of the stairs. There were times when he could not join his father and older brother, 14, in a game of basketball because of the pain.

When the joints are inflamed and painful, children cannot participate in physical activities and may have difficulties performing daily tasks, says Dr Teh. This can affect their ability to engage in typical childhood play and sports, impacting their social interactions at school.

Despite Olivia's condition, she still insisted on playing outdoors with her swollen toe when she was younger, says Ms Chia.

She remains active and goes for weekly ballet, gymnastics and

**I remember feeling scared and confused. I wondered if this would be a long-term issue and if I would still be able to play and run around with friends in school.**



**JENSEN SI** on his thoughts when he was diagnosed with enthesitis-related JIA at the age of nine. He is now 12 and has written a book on the condition

swimming classes.

"We inform her teachers and coaches about her condition and they allow her to sit out if she feels pain or strain," says Ms Chia.

Long-term complications of JIA include joint damage and deformity, growth issues such as short stature and difference in limb lengths, and osteoporosis, says Dr Ooi.

Treatment is individualised for every child with JIA. The goal is to reduce pain and stiffness, prevent joint damage, minimise deformities and preserve growth, so that the child can continue as normal a lifestyle as possible, says Dr Teh.

Non-medication therapies that aim to preserve joint function and mobility include hydrotherapy, which involves exercises performed in a warm pool.

The buoyancy of the water reduces the stress on the joints while allowing for gentle movement and strengthening, says Dr Ooi.

The warmth of the water can also help relax muscles and decrease pain, thereby reducing joint stiffness and inflammation, she adds.

Both Jensen and Olivia go for follow-up checks every few months.

About half the children with JIA go into remission or outgrow it, says Dr Ooi. The chances of this happening vary, and depend on the type and severity of the condition.

For instance, oligoarticular JIA, which affects fewer than five

joints, has a better prognosis, and many children with this sub-type may go into remission, she says.

## BOOK RAISES AWARENESS OF CONDITION

In 2023, Jensen decided to write a book to raise awareness of his condition.

Titled *My JIA Story*, it describes his symptoms, how he learns about his condition and why he keeps doing what he loves, despite some difficult days.

"I realised many people, including those much older than me, weren't aware that arthritis can affect young children. I wanted to share my experience, tell other children with the condition that everything will get better and to not give up," says Jensen.

The book, which was edited by Dr Yeoh, was published by the National Arthritis Foundation and sponsored by the philanthropic arm of CapitaLand Group, CapitaLand Hope Foundation.

In February, Dr Yeoh and Jensen sent the books to primary schools across Singapore. It is not for sale, but available for loan in primary school libraries and public libraries under the National Library Board.

"I hope it inspires children with the condition to know that they can overcome their challenges with a brave heart and a positive mindset," says Jensen.

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