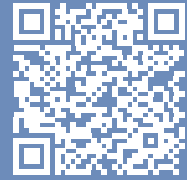


# Stem Cells — What the Research Shows



SCAN TO READ MORE

Stem cell therapy holds genuine promise for orthopaedic medicine, but the clinical evidence to date does not yet support routine use. A 2021 systematic review and meta-analysis of randomised controlled trials found no statistically significant improvement in pain or function for stem cell injections versus placebo in knee osteoarthritis. Understanding the current state of the science helps patients set realistic expectations and make informed decisions.

## THE TECHNIQUE

### 01 The Science So Far

Mesenchymal stem cells (MSCs) can differentiate into cartilage in laboratory models.

### 02 Meta-Analysis Finding

2021 systematic review: no major improvement in pain vs placebo in clinical trials.

### 03 The Clinical Challenge

Reliably placing cells at the right joint location with durable effect remains unsolved.

### 04 Realistic Timeline

Meaningful clinical application to established arthritis: estimated 5–10+ years away.

## AT A GLANCE

### CELL SOURCE

Mesenchymal MSCs

### META-ANALYSIS

No Major Benefit

### STATUS

Research Phase

### TIMELINE

5–10+ Years

“The science is exciting —  
but the evidence must lead the way.”

— Dr Chien-Wen Liew

## FREQUENTLY ASKED QUESTIONS

### Q. What did the meta-analysis find?

A 2021 systematic review of randomised trials found stem cell injections showed no statistically significant improvement in pain or function compared to placebo for knee osteoarthritis.

### Q. Can I access stem cell treatment for arthritis now?

Not as a proven standard treatment. Several commercial clinics offer injections, but robust evidence for clinical benefit is currently lacking. Exercise caution with unproven offerings.

### Q. Should I wait for stem cell therapy before having surgery?

For significant pain and functional limitation, delaying proven treatment for speculative therapy is generally not advisable. Discuss your individual situation with Dr Liew.

## ABOUT THE SURGEON

Dr Chien-Wen Liew exclusively performs total hip replacements via the direct anterior approach and total knee replacements via kinematic alignment only. He utilises patient-specific technology for both procedures, and practices from Orthopaedics 360 — within the Eastwood Private Hospital Precinct.

Dr Chien-Wen Liew

Hip and Knee Replacement Surgeon

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