

# Platelet Rich Plasma (ACP) Injections for Knee Osteoarthritis



## Mark Clatworthy Orthopaedic Knee Surgeon

You have moderate osteoarthritis in your knee. Keyhole surgery is unlikely to make your knee better and may make it worse while your knee is too good for a knee replacement

Until recently only three treatments have been shown to make a difference for your degree of osteoarthritis. Weight loss, low impact exercise such as an exercycle and anti-inflammatories

Injecting Autologous Conditioned Plasma (ACP) is a new method of treatment for mild to moderate knee osteoarthritis. ACP is a form of PRP (platelet rich plasma) which is formulated for osteoarthritis

ACP has shown in randomized controlled studies to have better pain relief and increased mobility and function for up to twelve months when compared with a saline injection (a placebo) or hylauronic acid (joint lubricant injections). ACP is the product of your own blood which is centrifuged to increase the concentration of platelets.

When injected into your knee these platelets become activated and release very specific proteins called growth factors. These growth factors act as a powerful localized anti-inflammatory agent that reduces the breakdown of the articular cartilage in your knee and the subsequent pain and swelling.

Studies have shown that it is best to have three injections one week apart and the ACP increases cartilage cell production and synovial fluid production.

Our own study evaluating ACP at one and two years following the treatment shows the pain goes from 53/100 pre ACP to 31/100 at one year and 34/100 at two years. When asked how normal the knee feels it increases from 33/100 pre injections to 59/100 at one year and 68/100 at two years. Patient satisfaction is 79% at one year and 80% at two years. I describe this treatment as a “patch not a cure”. It is likely to improve your symptoms but not resolve them

Unfortunately no insurer or ACC fund this procedure. So if you are interested you will have to self fund them. The cost is \$1575 inc GST for the three injections

After ACP injections, you may experience soreness and aching for several days, which is a sign that the healing process has begun. Paracetamol and ice may be utilized if needed to help alleviate these symptoms. Anti-inflammatory medications (Ibuprofen and other NSAIDs) should be avoided for the first 48 hours after the injection so as not to inhibit the healing cascade put into effect by the ACP.

You can return to sedentary work and other normal activities immediately after treatment, but should refrain from heavy lifting and strenuous activity for a few days.

Adverse effects are rare and since the ACP is produced from your own blood, there is very little risk of complications with this procedure. As with any injection though there is always the small risk of infection or injury to nerves or blood vessels. Scar tissue formation and calcification at the injection site are also possible.

You should not have a ACP injection if you have used non-steroidal anti-inflammatory medications (NSAID's - examples include Celebrex, Nurofen, Voltaren, Mobic) in the seven days leading up to your appointment. So refrain from using this type of medication and use Paracetamol instead.

You should not have a ACP injection if you have the following:

- Cancer or metastatic disease
- An active infection
- A low platelet count
- An immuno-compromised condition

Also you should not have it if you had recent surgery, corticosteroids in the last 3 weeks or if you are pregnant or breastfeeding.

No prior blood test is needed unless one is aware of any blood related medical condition.

Anticoagulation needs to be stopped 5 days before the injection.

We recommend bringing someone to drive you home.

You may feel some flare up of your pain following the injection for up to a week. Please use paracetamol (e.g. Panadol) for pain relief or paracetamol combined with codeine (e.g. Panadeine) should you require something stronger.

The ACP injection process will be held in Mark Clatworthy's rooms by Emanuela Crua, qualified Orthopaedic Surgeon in Italy, who is not registered with the NZ Medical Council in New Zealand.

You will need to sign an informed consent before and you will be given an Instruction Sheet after the procedure.

We will be collecting pre injection and post injection research data to monitor your progress

### **Instructions after ACP injection**

You may feel some flare up of your pain following the injection for up to a week.

Please use **paracetamol (e.g. Panadol)** for pain relief or **paracetamol combined with codeine (e.g. Panadeine)** should you require something stronger.

**Avoid** over-the-counter anti-inflammatory medications (**Ibuprofen and other NSAIDs**) for the first 48 hours.

You can use some ice for 10-15 min 3 to 5 times a day.

If you experience persisting severe pain or an adverse reaction following the injection, please contact Mark Clatworthy on 021-433335

During the injections' cycle you can do your normal everyday activities but avoid exercise.

For the following three weeks you can go for short walks (up to 20') and use the exercycle with low resistance.

You will have a follow-up appointment with Mark Clatworthy 3 months after the cycle.