Volar plate injury

This leaflet offers more information for patients with a volar plate injury. If you have any further questions or concerns, please speak to the staff member in charge of your care.

What is a volar plate injury?
Each finger joint has three ligaments (tough bands of connective tissue) to support it and prevent the joint from becoming dislocated or slipping into an abnormal position. The most common joint to suffer ligament injury is the finger joint closest to the knuckle (the proximal interphalangeal joint, or PIPJ). The volar plate ligament is located on the palm side of the joint and injury occurs when the joint is stretched further than it is designed to, causing the ligament to be torn.

The most common causes of volar plate injuries are sports or falls where the finger is bent backwards (hyperextension) or force is applied to the end of the finger, for example, a ball hitting the fingertip. Volar plate injury can also occur following a road traffic accident or physical violence. If the PIPJ is dislocated, it often damages the volar plate and other ligaments (collateral ligaments).

There are varying degrees of volar plate injury:
- **Sprain** (where the ligament is stretched or some of the fibers are torn)
- **Rupture** (where the ligament is completely torn)
- **Avulsion fracture** (where the ligament is torn away from the bone, sometimes causing a fracture).

What are the symptoms?
A volar plate injury is often painful, swollen and bruised around the PIPJ. The finger’s range of movement can decrease due to the pain and swelling.

If the PIPJ has been dislocated, it will appear deformed. Sometimes the force of the dislocation can cause the skin to burst open on the palm side of the joint, but this is rare.

How is a volar plate injury diagnosed?
Your surgeon or nurse practitioner will talk to you about your medical history and then perform a physical examination. X-rays will be taken to look for an avulsion fracture and to check whether the joint is aligned properly. No other tests are usually required.

How is a volar plate injury treated?
**Conservative management**
Most volar plate injuries are managed conservatively (without surgery) and recover well. A period of splinting (using a rigid support to stop the finger from moving) may be needed to protect the joint and stop the joint from dislocating. The splint will be used in combination with hand exercises to prevent stiffness. Referral to the hand therapy team is usually required to rehabilitate the finger and improve long term function and range of movement.

Simple sprains are treated with buddy strapping (where the injured finger is taped to an adjacent finger). This allows the injured finger to bend straight away, preventing stiffness, while using a non-injured finger for support.
If the PIPJ is dislocated, it will be reduced (put back) under local anaesthetic in the emergency department (ED). Occasionally, the joint will not reduce in the ED and your surgeon or nurse practitioner may recommend surgery to reduce the dislocation under general anaesthetic (where you are put to sleep).

**Surgical management**

In severe cases, the volar plate injury causes significant instability of the joint. In this case, your surgeon or nurse practitioner may recommend an operation to repair the ligament. This is normally performed as a day case procedure under local or general anaesthetic. Your surgeon or nurse practitioner will discuss your anaesthetic with you. A period of splinting and referral to hand therapy will be needed following surgery.

**What can I expect from my recovery?**

Volar plate injuries take a surprisingly long time to heal. Most simple volar plate injuries will return to normal function after a few months. However, severe cases or dislocations of the joint can cause some permanent stiffness and pain. Any joint movement that is lost tends to be minor and does not require further treatment.

The swelling can take up to six months to resolve and can delay the joint’s return to full movement. This will be assessed by your surgeon, nurse practitioner or hand therapist and compression bandaging may be used to help reduce the swelling.

As the volar plate heals, it creates scar tissue which can cause the joint to be larger than before. Because of this, you may find that rings do not fit the finger following a volar plate injury. The scar tissue takes at least a year to settle and there is a chance that the joint may return to its normal size. It is therefore recommended that you do not have rings resized for at least one year following your injury.

Very rarely, if the ligament has caused an avulsion fracture, this can cause osteoarthritis at the joint. If you have any concerns please speak to your surgeon, nurse practitioner or hand therapist.

**Who can I contact for further information?**

If you have any questions or concerns, please discuss them with your surgeon, nurse practitioner or hand therapist at your clinic appointment. Alternatively, you can contact the hand unit on **020 8725 4770** (Monday to Friday, 8.30am to 5pm).

For urgent advice outside of these hours, please contact the on call plastic surgeon by calling the switchboard on **020 8672 1255** and asking for bleep number **7050**.

**Additional services**

**Patient Advice and Liaison Service (PALS)**

PALS can offer you on-the-spot advice and information when you have comments or concerns about our services or the care you have received. You can visit the PALS office between 9am and 5pm, Monday to Friday in the main corridor between Grosvenor and Lanesborough Wing (near the lift foyer).

Tel: **020 8725 2453**  Email: pals@stgeorges.nhs.uk