Notes on the Physio talk by Chris Perrey who is a Sports and Muscular Physiotherapist and the WAIS Performance Swimming Physiotherapist.

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Part 1 – Injury Prevention
is about eliminating or reducing cause or determinant ill health and controlling risk.
Examples immunization and smoking education.

Key factors in reducing illness - Physiological, Physical and Psychological
Fatigue, sleep, nutrition.
Good sleep, food and hydration, good recovery, reducing life stresses, optimizing mobility are all essential basics.

Injuries in Swimming
95% prevalence is shoulders. Often multi factorial in nature – tendon, bursa, labrum.

Why do injuries occur? –

- overload
- poor strength
- poor mobility

There can be a combination of these three. When starting, start slowly to improve global strength. Poor technique is another factor.

Part 2 - Practical and Screening
An exercise to test thoracic spine rotation and extension
sitting on a chair, arms in front with palms together or crossed on the chest turn to the right and to the left. 70% rotation is good.

Potential sites of restriction; - thoracic spine, lumber spine, lats, Pecs, abdomen.
Exercises for thoracic extension

1. Archer Stretch - lying on your side. Under leg is straight, upper leg is bent at right angle. Arms, with palms together lying on the floor in line with shoulders and perpendicular to the body. The full archer exercise moves the upper arm in an arc, so the back of the hand rests on the floor. The knee stays on the ground. However, Chris said it is enough to slide the upper arm along the line of the lower arm until it rests on the chest, return and repeat. For a visual look at Archer stretch on the internet. [YouTube]

2. Kneeling on the ground with one knee at right angles and back leg stretched back so the body is in a lunge position. Hands either side of the front foot. Raise the opposite arm to the front leg so it is up in the air rotating the body, arc the arm back so the hand goes under the bent leg and repeat. Change having the opposite leg forward.

3. On the floor in dog position i.e. arms in line with shoulders, knees on the ground with legs behind. Stretch one arm forward while opposite leg stretches back. Return to the original position and repeat with the other opposites.

Other good exercises - Lying on the ground with a roller under the shoulder. Minimal roll backwards and forwards.

Standing next to a pillar with an arm at right angles, the upper arm resting against the pillar put gentle pressure against the pillar.

Shoulder rotation -

To test shoulder rotation.
Facing a wall with your forearm against the wall at shoulder height with palm down. Keeping the forearm in contact with the wall raising the arm as far as it will go is testing external shoulder rotation. Moving the forearm downwards is testing internal shoulder rotation. 45 deg is good.

Using a massage ball is excellent to release muscle and tendon tension. 3 positions
1. Pecs 2. Back of shoulder – just under armpit 3. Inside shoulder blade.

Combined elevation required for high elbow, recovery, streamlining.
An exercise to improve elevation; - lying face down with arms extended in front. Raise arms 5 – 15 degrees is excellent. 0 – 5 degrees indicates need for improvement.

Small amounts of work done regularly and consistently are best to help improve mobility/strength/ tendon loading. Ideally exercises should be done just prior to a swimming session. This will improve mobility during the session.

Key mobility in swimmers

Thorax, shoulders, hips, hip extension/flexors, hamstrings

Injury Risk in aging Swimmers

- Increased muscle tightness
- Reduced joint mobility
- Decreased strength
- Swimming training changes – more intermittent/event focus
- Lifetime changes such as hormonal changes e.g. menopause and changes in tendon structure after 40 yrs.