UNIVERSITY OF ALBERTA
GLEN SATHER SPORTS MEDICINE CLINIC

ACL SURGERY EDUCATION HANDOUT

PRE-OPERATIVE

- Read ACL reconstruction booklet **PRIOR** to surgery and bring to the hospital on day of surgery
- **Pre-surgical rehabilitation**: Maintain range of motion & strength with physio, cardio and gym program
- Avoid running, jumping, pivoting/twisting on the knee and **SPORTS**
- Complete Grey Nuns Hospital (GNH) Physical Therapy teaching clinic (if appropriate)
- Cease smoking if appropriate (increases complication)
- Begin weight loss program (if appropriate)

Any problems or complications, please contact Dr. Hui/Otto/Sommerfeldt's office

- Try to maintain health before surgery
  i. Plan dental work at least 6 weeks prior
  ii. Protect skin around incision area (NO open wounds, insect bites etc, surgery may be cancelled if skin not intact)
  iii. Maintain overall health prior to surgery

- Hormonal contraceptives (i.e. Mirena, BCP, Nuvaring) **Options:**
  i. Stop 2-3 weeks in advance and restart 2 weeks post-op. During that time use other forms of contraception (including the subsequent month).
  ii. Fragmin (If prior DVT/blood clot or risk factors)
  iii. Do nothing and accept added DVT risk

POST-OPERATIVE

- No long air travel for at least 2 weeks after surgery
- Typically will take 2-4 weeks before returning back to driving safely (if right knee)
- Work/school guidelines:
  i. Will likely miss 1 week of school
  ii. 2 weeks for sedentary work (office, limited standing)
  iii. 4-6 weeks for light work, minimal walking, light vehicle operation
  iv. 6 – 12 weeks for more regular walking and light lifting (10-20lbs)
  v. 16 weeks for light climbing, jogging, working on uneven ground
  vi. 24 weeks for physical challenging, climbing, running, jumping, heavy lifting

- **Criterion Based Rehabilitation Program**:
  i. Typically 1 year minimum of rehabilitation prior to return to sport/activity
  ii. Visit glensatherclinic.ualberta.ca for ACL protocol under "patient resources"

- **Post-traumatic Osteoarthritis (OA):**
  i. Pre-mature development of knee OA due to trauma (eg. ACL tear, meniscus tear, articular cartilage injury increases chances of development of OA)
  ii. Can develop OA as early as 10-15 years after initial knee injury
  iii. Surgery to the knee **will not** change the risk of OA development
  iv. **Weight gain and further re-injury** to the knee will increase the risk of further OA

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CONSENT TO SURGERY & EXPECTATIONS POST-SURGERY

EXPLANATION OF SURGICAL PROCEDURE

- Anaesthetic (usually GA)
- Incisions
  - Non-functional skin numbness: Due to the skin incisions, you may notice a numb patch on the lateral aspect of the lower leg. This is of no functional significance and is unavoidable. The numb patch is permanent and tends to shrink with time and does not affect the result of the surgery.
- Graft harvest
  - Autograft (your own tissue) will result in some weakness in the hamstring muscle group ≈ 5 – 15 %
  - Possible bruising and pain in harvest region
  - Possible hamstring tears after surgery – your hamstrings will recover quickly and tendon regrowth may be felt at 14 days post surgery. However, scar tissue forms around the tendon and can be susceptible to popping or tearing after surgery if the area is stretched or over-stressed. This may cause mild pain in the region but only will set your rehab back a few days.
  - Pain the hamstrings tend to resolve around 6-8 weeks post-operatively
- Possible calf/shin pain
  - Postoperative bleeding and marrow exuding from the bony tunnel may track down the shin causing red inflamed painful areas. Typically when standing up the blood rushes to the inflamed area causing throbbing this should **ease with elevation and ice packs**. This may end with a bruise and slight swelling around the ankle usually lasting about one week. This is a normal postoperative reaction.
- Bone tunnels
- Metal hardware – small chance of removal in future
- Possible meniscal surgery
  - Repair has 75% chance of success in best circumstances, If repair fails – will require meniscectomy
  - Meniscectomy (resection of torn portion of meniscus) if unrepairable

RISKS OF SURGERY

- Infection – 1%
  - Superficial
  - Deep – can require surgery to wash out infection or IV antibiotics for 6 weeks; possible graft failure
- Deep Vein Thrombosis (blood clot) – 1%
  - Pulmonary Embolism 0.1%
  - Birth control pill increases risk slightly
- General Anaesthetic/Spinal – Death, Heart Attack, Stroke – Very rare
- Severe stiffness - <1%
- Graft rupture/retear - **1/5 chance** of possible re-injury to the same or opposite knee if returning to high-risk sports (soccer, basketball, football, rugby, lacrosse etc.) or resuming sports too quickly post surgery

Patient name: _____ **Patient/Guardian signature:** _____

Date: _____ **Information provided by:** _____

Initials: _____