



Total Knee Replacement:

Post-Surgery Recovery Guide

全膝關節置換：術後復康指南

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Total Knee Replacement Surgery

全膝關節置換術

Total Knee Replacement (TKR) is a surgical procedure that replaces damaged knee joint surfaces with artificial implants. TKR aims to improve the quality of life of individuals with severe osteoarthritis by reducing pain and improving function.

全膝關節置換術是一種外科手術，透過人工植入物代替受損的膝關節表面。此手術主要用於治療嚴重退化性關節炎，能有效減輕疼痛、改善活動能力並提升生活品質。

Pre-Operation Physiotherapy



術前物理治療

Pre-operation exercises help strengthen muscles, increase joint flexibility, and establish a solid foundation for post-operative rehabilitation. The following exercises should be performed under the guidance of a healthcare professional, with intensity adjusted to the individual's tolerance level.

術前適量的運動有助強化肌肉、增加關節靈活度，並為術後復康奠定良好基礎。患者可在醫護人員的指導下，根據自身能力進行以下訓練。

Main Pre-Operative Training Exercises

主要術前訓練項目

-  Quadriceps and Hamstring Strengthening: To enhance knee joint stability
強化股四頭肌與膕繩肌：增強膝關節穩定性
-  Gentle Joint Range of Motion Training: Maintaining joint flexibility
溫和的關節活動度訓練：維持關節靈活性

Post-Operation Physiotherapy

術後物理治療

Patients can learn breathing exercises and ankle movements before surgery, so they can start immediately after waking up from the procedure to reduce the risk of complications.

病人在手術前可先學習呼吸練習和腳踝運動，在手術清醒後就能立即開始進行，以減低出現併發症的機會。

Breathing and Coughing Exercise

呼吸與咳嗽訓練

- Aims** To improve chest expansion, lower the chance of sputum retention or infection after surgery
- Method** Perform 5-10 times deep breathing exercises every hour: inhale through the nose, exhale through the mouth. If there is phlegm, cough it out forcefully

- 目的** 促進肺部擴張，減低肺部積痰或感染的機會
- 方法** 每小時進行5-10次深呼吸運動，鼻吸口呼，如有痰時用力咳出



Ankle Toes Exercise

腳踝運動

- Aims** Promotes blood circulation in the lower limbs, reducing the risk of lower limb swelling and deep vein thrombosis
- Method** Move the ankle and toes up and down for 20 times hourly

- 目的** 促進下肢血液循環，減低下肢腫脹及深層靜脈栓塞的機會
- 方法** 上下活動腳踝及腳趾，每小時20次



Physiotherapist will assess the condition of patient after the operation and prescribe the following exercises regarding to individual conditions.
物理治療師將於術後評估患者狀況，並根據個人情況指導以下運動。

Below are exercises that can be started on **the first day after the operation**:
以下運動可於**手術後第一天**開始進行：

Heel Slide Exercise

足跟滑動運動

Aims To restore the range of knee flexion

目的 恢復膝關節屈曲活動度

Method Slide the heel toward the buttocks and then extend it, performing 3 sets per day with 10-20 repetitions per set

方法 將足跟向臀部方向滑動至有輕微拉扯感覺，然後伸直，每日進行3組，每組10至20次



Static Quadriceps Exercise

股四頭肌靜態訓練

Aims To strengthen the quadriceps and restore the full range of knee extension

目的 強化股四頭肌以及幫助膝關節完全伸直

Method With the knee extended, tighten your thigh muscles, pressing your knees down while pointing your toes upwards. Hold for 5 seconds, then relax. Perform 3 sets daily, with 10 to 20 repetitions in each set

方法 伸直膝蓋並收緊大腿肌肉，將膝關節向下壓，同時腳尖向上勾起，維持5秒後放鬆，每日進行3組，每組10至20次



Quadriceps Strengthening Exercise

股四頭肌強化訓練

Aims To strengthen the quadriceps muscle group

目的 強化股四頭肌群力量

Method Place a towel roll under the knee, extend the knee, point the toes upward, hold for 5 seconds, then relax. Perform 3 sets per day, with 10-20 repetitions per set

方法 在膝下放置毛巾捲，伸直膝關節並勾起腳尖，維持姿勢5秒後放鬆，每日進行3組，每組10至20次



Leg Sideway Lifting

側抬腿運動

Aims To strengthen the hip abductor muscle group

目的 強化髖外展肌群力量

Method Lie on your side with the operated leg facing upward, lift the upper leg upward in a controlled manner, then relax. Perform 3 sets per day, with 10 repetitions per set

方法 側臥於患側朝上的位置，伸直上方腿部並緩慢抬高，然後緩慢放下放鬆。每日進行3組，每組10次



Straight Leg Raise

直腿抬高運動

Aims To strengthen the hip flexor and quadriceps muscle groups

Method Lie flat and bend the unaffected knee to stabilize the pelvis. Lift the affected leg with the knee straight to about 30 cm off the surface, hold for 3 seconds, then slowly lower and relax. Perform 3 sets per day, with 10 repetitions per set

目的 強化髖屈肌與股四頭肌群力量

方法 平躺後彎曲健側膝蓋以穩定骨盆，患側腿保持伸直並緩慢抬高（約離床30公分），維持膝蓋伸直狀態3秒，然後緩慢放下，每日進行3組，每組10次



Bridging Exercise

橋式運動

Aims To strengthen the back and gluteal muscle groups

Method Lie flat with both knees bent and feet flat on the surface. Tighten the abdominal muscles, slowly lift the hips until the shoulders, hips, and knees form a straight line, hold for 5 seconds, then slowly lower and relax. Perform 3 sets per day, with 10 repetitions per set

目的 強化背部與臀肌群力量

方法 平躺並彎曲雙膝（腳掌平貼床面），收緊腹部，緩慢抬高臀部，使肩部、髖部與膝蓋呈一直線，維持5秒後緩慢放下。每日進行3組，每組10次



Seated Knee Extension Exercise

股四頭肌肌力訓練

Aims To strengthen the quadriceps muscle group

Method While seated, straighten the affected knee and point the toes upward. Hold for 5 seconds, then relax. Can be performed under the guidance of a physiotherapist with a sandbag tied around the ankle for added resistance. Perform 3 sets per day, with 10 repetitions per set

目的 強化股四頭肌力量

方法 坐在椅子上，腳尖向上勾起，緩慢伸直患側腿，維持姿勢5秒後放鬆。可在物理治療師指導下於腳踝繫上沙包負重。每日進行3組，每組10次



Below are exercises that can be started on the third day after the operation:

以下運動可於手術後第三天開始進行：



15
minutes
分鐘

Bike Exercise

單車訓練

Method To use a stationary bike, set the resistance to the minimum, and adjust the bike position or seat height so that your knees are slightly bent. Feeling a slight pull while exercising is sufficient; avoid excessive pulling. Train for 15 minutes

方法 使用固定式單車，將單車調整至最小阻力，調整單車位置或座椅高度至膝部微曲，運動時感受到輕微的拉扯感覺即可，避免過度拉扯。進行15分鐘的訓練

Hamstring Stretch

膕繩肌伸展運動

Method To perform this stretch, sit with one leg extended. Lean forward until you feel a stretch in the back of your thigh. Hold this position for 15 seconds, then relax. Perform 3 sets per day, repeat for a total of 10 repetitions

方法 伸直患側腿，保持背部挺直，身體向前傾，直到感覺大腿後側有輕微拉扯。保持15秒後放鬆，重複10次，每日進行3組



10
reps/set
每組

x3
per day
每日

Hemi-Squat Exercise

半蹲訓練

Aims To strengthen lower limb muscle strength and joint stability

Method To perform this exercise, hold on to a chair for support. Squat down to a comfortable angle while keeping your back straight, keep your knee in line with the toes. Aim for 3 sets per day, with 10 repetitions in each set

目的 強化下肢肌力與關節穩定度

方法 雙手扶住椅背以保持平衡，緩慢下蹲至舒適的角度，保持背部挺直，膝蓋對齊腳尖方向。然後緩慢起身回到起始位置。每日進行3組，每組10次



10
reps/set
每組

x3
per day
每日

Leg Swing Exercise

腿部擺動訓練

Aims To strengthen thigh muscle strength and improve dynamic balance

Method Stand on one leg, using a wall or fixed object for support to maintain balance.

Swing the affected leg in three directions:

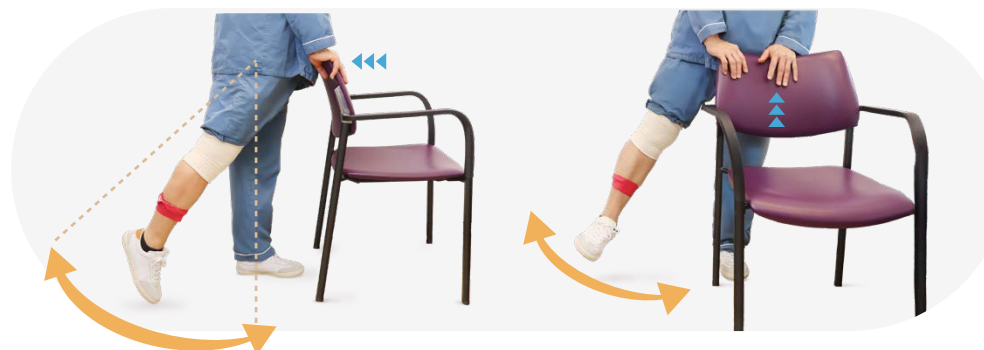
Complete 20 repetitions in each direction
• Forward/Backward
• Side to side

目的 增強大腿肌力及改善動態平衡

方法 單腳站立，手扶牆壁或固定物以保持平衡

患側腿部向三個方向擺動：

每個方向20次
• 向前/向後擺動
• 向側邊擺動



Functional Training – Walking Training

功能訓練 – 步行訓練

The physiotherapist will assess the patient and select an appropriate walking aid based on the patient's weight-bearing status and activity level, adjusting it to the appropriate height.

物理治療師會評估患者，根據患者的負重狀態和活動能力，為其選擇合適的助行器及調整到合適高度。

Below are some commonly used walking aids
以下為常用的助行器



The physiotherapist will teach the proper way of transfer, walking and going up and down stairs.
物理治療師會指導患者轉移位置、平路行走及上落樓梯的正確姿勢和方法。

Sit to Stand Transfer

坐至站立

In early post-operation stage, patient can place the operated leg slightly forward while standing up or sitting down to avoid trigger the knee pain. Evenly weight bearing on both legs is expected once swelling and pain are reduced.

如手術後初期膝關節屈曲時感到疼痛，站起或坐下時可先把患側腿微伸直及置前，以減低關節受力。待關節活動幅度及疼痛有改善後，便可雙腳平均受力。



Walking on Level Ground

平地步行訓練



Stairs Walking

樓梯訓練



Points to Note

注意事項

1. Immediately stop exercise if severe pain occurs and consult medical staff.
2. Please continue with the knee mobilization, stretching and strengthening exercise after discharge from the hospital.
3. Mild soreness after exercise is expected, but if prolonged soreness is noted, please adjust the exercise intensity accordingly.
4. Apply ice (15-20 minutes/session) to reduce swelling if necessary.

This protocol should be individualized. Regular follow-ups with your physiotherapist and Orthopedic Doctor are recommended.

1. 運動時若出現劇烈疼痛應立即停止訓練，並通知醫護人員。
2. 患者在回家後請繼續進行以上膝部活動、伸展及肌肉鍛煉運動。
3. 運動後肌肉輕微酸痛為正常反應，如酸痛程度過於嚴重或時間較長，可酌量調低運動強度。
4. 有需要時可用冰敷患處(每次15-20分鐘)以減輕腫脹。

復康計劃須按個人情況調整，建議患者可定期覆診並接受物理治療師及骨科醫生跟進評估。

Please feel free to contact us, if you have any enquires regarding the booklet or rehabilitation.

如對小冊子或復康上有任何疑問，歡迎聯絡我們作出跟進。

 **(852)2835 0558**

Wishing you a speedy recovery

祝早日康復