

Department of Physiotherapy

Amputee Rehabilitation

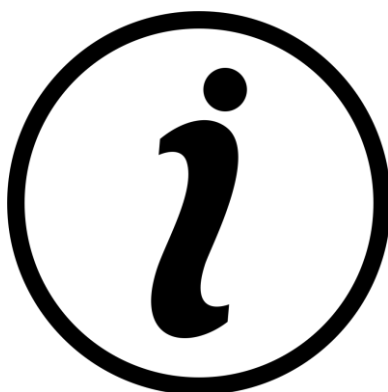


Recovery after Amputation

- This is a patient-friendly education booklet prepared by your rehabilitation team to help you understand and prepare for your recovery. Please review this booklet with them.
- Do feel free to note down the advice provided by your rehabilitation team as well as any concerns or questions you may have.

Important

- Do note that the information provided in this booklet is for educational purpose. It is not intended to replace the advice or instruction of your rehabilitation team.
- Do discuss with your rehabilitation team if you have questions about this booklet.
- Do not attempt the exercises in the booklet on your own before the advice of the rehabilitation team.



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Lower Limb Amputation

A lower limb amputation is often performed when a limb can no longer be salvaged. Common reasons for amputation include:

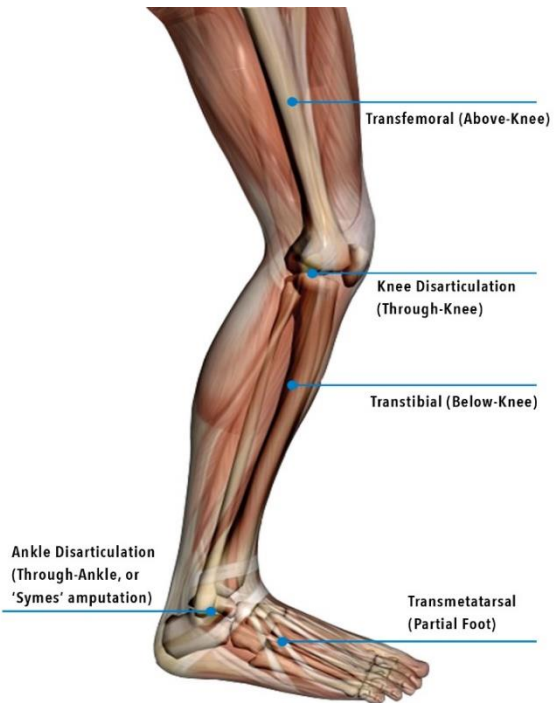
- Severe infection of the soft tissues or bone of the foot
- Diabetes-related foot complications
- Peripheral vascular disease causing poor blood supply to the legs
- Trauma such as a road traffic accident
- Tumour affecting limb

The amputation can occur at different levels of the leg.

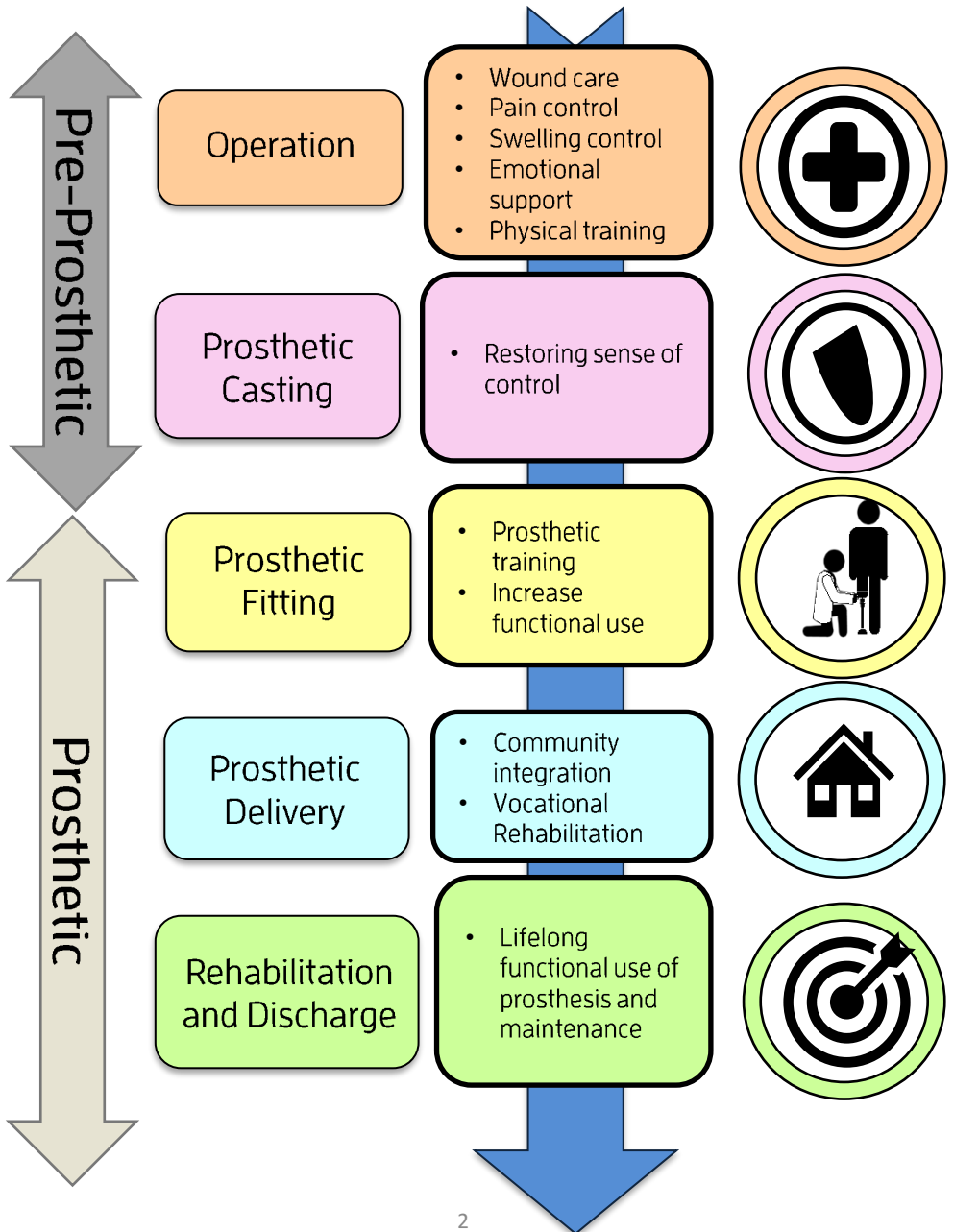
Different levels of amputation will mean that you will require different type of prosthesis.

Learning how to use a prosthesis is a journey, and there are many areas to consider.

This booklet will aim to give you some guidance on what to expect.



Course of Rehabilitation



Your Healthcare Team

Doctor and/or Surgeon



- Oversees your recovery within your hospital stay
- Performs the limb amputation
- Inspects the wound to determine wound healing
- Prescribes medications to help in controlling pain
- Refers other Professionals based on your needs

Rehabilitation Doctor

- Specialises in the area of rehabilitation
- Co-ordinates your care in the rehabilitation setting

Nurse



- Attends and monitors your wound to promote wound healing
- Facilitates your activities of daily living
- Monitors your vital signs and daily intake of medications
- Coordinates with other care team members on your needs



Podiatrist

- Looks after your foot and stump
- Provides advice in protecting your feet such as foot check, footwear, diabetic foot screening

Prosthetist & Orthotist (P&O)



- Assesses your function, recommends and provides prosthesis or orthosis as required
- Measures and makes your prosthesis when your stump is ready
- Modifies and adjusts your prosthesis for the best fit and function

Physiotherapist



- Assesses your functional mobility
- Trains your muscle strength, balance and walking ability
- Prescribes suitable walking aids and exercises for you to do
- Helps you to achieve your highest level of independence

Medical Social Worker



- Offers support on coping with an amputation to both you and your family
- Assists to link you to available community resources you may need (e.g. rehabilitation centres)
- Provides financial assistance if necessary

Psychologist



- Assesses mood and provides individualised treatment to address the psychological aspect of the amputation
- Enhances your coping and emotional well-being for a successful reintegration in the community

Occupational Therapist



- Assesses your coping skills in daily activities such as self care, household management, driving, leisure, school and work
- Provides recommendations and prescribes assistive devices if required
- Trains wheelchair mobility skills and assesses your suitability for different wheeled mobility devices if necessary
- Evaluates your home environment and prescribes environment adaptation, to facilitate safety and accessibility



YOURSELF!

- YOU are the MOST IMPORTANT member!
- Your active participation will make your progress go more smoothly
- You need to set realistic goals and do your best to achieve them
- Your rehabilitation team can help you with setting achievable goals and advise you on the rehabilitation process

Post-Operation Care

Post Operation

During this stage, your care team will be focusing on wound care, pain and swelling management. They will also teach you some physical mobility exercises, as well as getting you to practise doing some of your daily activities.

Surgical Wound Care

After operation, your wound will be covered with protective dressings to keep it moist and clean. When you are in hospital, your care team will care for and monitor your wound. At home, you may want to obtain instructions from the nurses before discharge, to care for your wound.

You will need to keep your dressings dry. Cover your dressings with plastic covering to keep the water out during bathing. Adequate nutrition is need to promote wound healing. Eat a healthy and balanced diet appropriate for your age and medical condition.

Once your wound has healed, the protective dressings will be removed.

Pain Management

There can be pain experienced after the operation. Do speak to your healthcare team about the location of the pain, how bad it is and how it feels. They will then be able to consider the best possible option to help to control the pain.

Swelling Management



Swelling of the stump is common post-amputation, and usually takes some time to resolve. To reduce the swelling early, your doctor and P&O may prescribe you with a stump shrinker.



Types of stump shrinker	
Below-knee stump shrinker	Above-knee stump shrinker
	

Table I. Photo illustrations on the different types of stump shrinker

Photos courtesy of Össur ASEAN



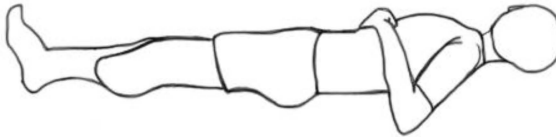
Your physiotherapist will teach you exercises to strengthen and stretch your muscles.

Positioning of Your Stump

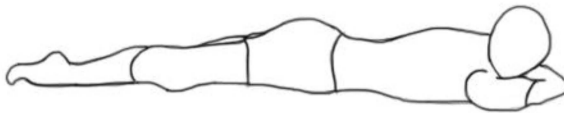
Positioning of your stump is important to ensure that your muscles do not get tight and allow a good posture when you are standing and walking. It also ensures that your stump does not get swollen and affect the fitting of your prosthesis later on.

Here are some good positions to adopt:

Lie down flat on your back



Lie on your stomach



To stretch your hip muscles in lying:

- If you have no heart condition: Lie on your stomach 3 or 4 times a day for about 10-15 minutes.
- If you cannot lie on your stomach: Lie down flat on your back, with no pillows under your stump, intact leg or body.



In sitting:

- Keep your stump straight and level.
- For example, put your stump on another chair when sitting in your wheelchair for a long period of time.
- Do not sit with your stump bent at the knee as this will increase swelling and muscle tightness.



In standing or walking:

- Keep your hips and knees straight when standing or walking.
- Aim to stand for at least 10 minutes, 3 times a day.

Stump Desensitisation

Your stump may feel more sensitive than other parts of your body. This is common, and it can be reduced with desensitisation techniques. It is important that your stump is not overly sensitive so that you will be able to tolerate wearing the prosthesis.



Some desensitisation techniques you can try include:

- Stroking
- Tapping
- Massaging

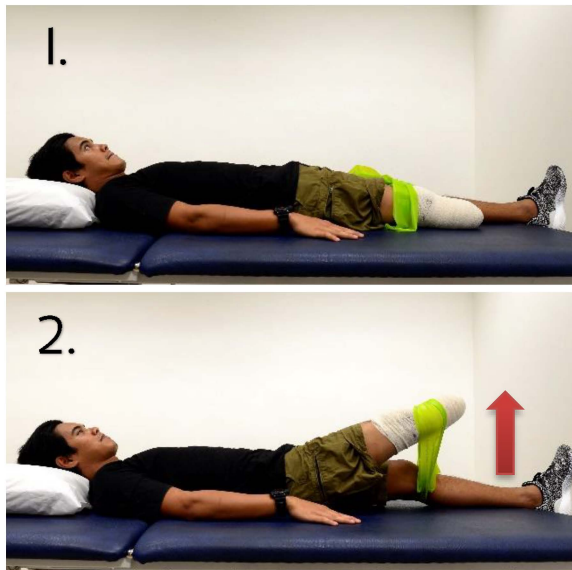
Perform these techniques approximately 10 minutes daily. Avoid the wound area if it is not fully healed.


Rehabilitation Exercises

Performing these exercises regularly will strengthen and ensure the flexibility of the muscles that you require for standing, transferring from chair to bed, and walking with your prosthesis. These exercises can be done in preparation for your prosthetic training and after you get your prosthesis, to maintain the strength.

Do these exercises 2 or 3 times a day.

Straight leg raise



1. Lie on your back. Tie a resistance band around both legs below your knee.
2. Keeping your knee straight, lift 1 leg off the bed about 15cm. 
3. Hold for 10 seconds and repeat 10 repetitions.
4. Repeat with other leg.

Hip abduction in side lying



1. Lie on your side. Tie a resistance band around both legs below your knee.
2. Keeping your hip, knee and shoulder in a straight line, lift the top leg towards the ceiling.
3. Hold for 10 seconds and repeat 10 repetitions.
4. Turn to the other side and repeat with other leg.

Hip abduction in supine



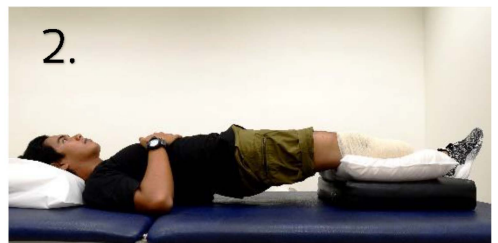
1. Lie on your back. Tie a resistance band around both legs below your knee.
2. Slide your leg out to the side.
3. Hold for 10 seconds and repeat 10 repetitions.
4. Repeat with other leg.

Hip extension in side lying



1. Lie on your side. Tie a resistance band around both legs below your knee.
2. Keeping your hip, knee and shoulder in a straight line, kick the top leg backwards.
3. Hold for 10 seconds and repeat 10 repetitions.
4. Turn to the other side and repeat with other leg.

Bridging



1. Lie on your back, put 1 or 2 firm pillows under your thighs.
2. Lift your buttocks off the bed by pushing both legs into the pillow.
3. Hold for 10 seconds and repeat 10 repetitions.

4-point kneel



Starting position:

Start with a 4-point kneel position.



A (arm):

1. Lift one arm to 90 degrees and hold for 5-10 seconds.
2. Return to the start. Repeat with other arm.



B (leg):

1. Lift one leg to 90 degrees and hold for 5-10 seconds.
2. Return to the start. Repeat with other leg.



C (arm & opposite leg):

1. Lift one arm to 90 degrees. While holding that arm, lift the opposite leg to 90 degrees.
2. Hold for 5-10 seconds.
3. Return to the start. Repeat with other arm and leg.

Hip flexor stretch (Variation A)



1. Lie on your back.
2. Pull one thigh with your knee bent until your chest, and hold onto it.
3. Your carer pushes down the other leg towards the bed.
4. Hold for 30 seconds and repeat 3 repetitions.
5. Repeat for other leg.

Hip flexor stretch (Variation B)



1. Lie on your side.
2. Your carer puts one hand on your hip and the other hand around the leg. Pull the leg backwards while stabilising the hip.
3. Hold for 30 seconds and repeat 3 repetitions.
4. Repeat for other leg.

Hamstring stretch



1. Lie on your back.
2. Pull your thigh until your chest.
3. Straighten your knee as much as you can.
4. Hold for 30 seconds and repeat 3 repetitions.
5. Repeat for other leg.

Equipment and Assistive Devices

Prior to discharge, your occupational therapist will discuss with you possible assistive equipment that may benefit you. Examples of assistive equipment or home modification may include the following:

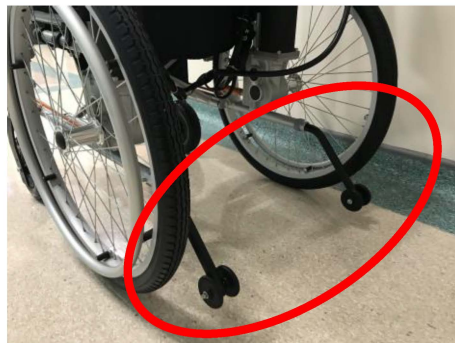
- Installation of grab bars or ramps
- Shower chair, commode or urinals
- Long-handled reacher
- Walking aid
- Seating cushion
- Wheeled mobility aid (wheelchair, motorised wheelchair or scooter)

Please consult your occupational therapist or physiotherapist for more information before making any home modifications or purchasing any equipment.

Wheelchair Safety



Apply the brakes of your wheelchair when not moving or prior to transfer.



Install anti-tippers to minimise risk of tipping backwards.



Ensure your feet have **direct contact with the floor** when trying to lean forward.



Perform pressure relief for 30 seconds every 30 minutes while sitting.

Transfers

Safety During Transfers

- Avoid wearing socks or compression stockings when transferring, standing and walking as doing so will increase your risk of falls.
- Ensure you have properly positioned your hand for support during the transfer.
- Take your time, do not rush through the transfer.

Consult your occupational therapist or physiotherapist to discuss the suitability of the following transfer methods.

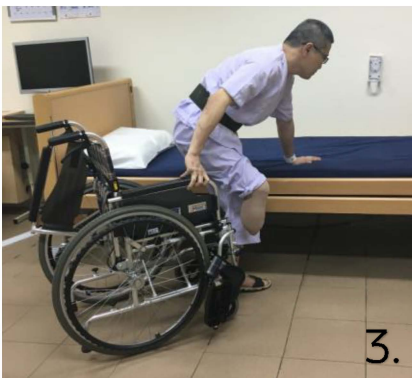
Wheelchair to Bed Transfer

Before transfer:

- Position wheelchair at a 30-degree angle facing the bed
- Ensure both breaks of wheelchair have been applied
- Remove or swing away both footrests
- Swing away the armrest nearest to the bed



1. Move buttocks forward until intact leg is stepping firmly onto the floor.
2. Reach your hand out to the bed or bed rail.



3. Lean your body forward and lift your buttocks.
4. Turn and slowly lower yourself onto the edge of the bed.

Bed to Wheelchair Transfer

Before transfer:

- Position wheelchair at a 30-degree angle facing the bed
- Ensure both breaks of wheelchair have been applied
- Remove or swing away both footrests
- Swing away the armrest nearest to the bed



1. Move buttocks forward until intact leg is stepping firmly on the floor.
2. Reach your hand out to the opposite armrest of the wheelchair.



3. Lean your body forward and lift your buttocks.
4. Turn and slowly lower yourself onto the wheelchair seat.
5. Return the armrest and footrests to its original position.

Wheelchair to Toilet Bowl Transfer

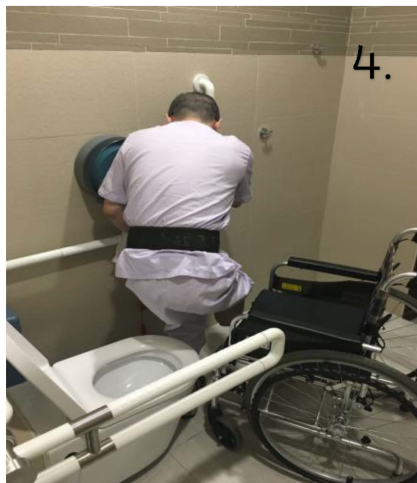


Before transfer:

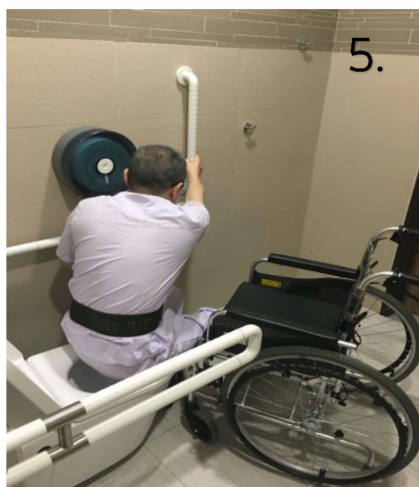
- Position wheelchair at a 30-degree angle with intact leg nearest to toilet bowl.
- Apply both brakes and remove footrests.



1. Move buttocks forward until intact leg is stepping firmly on the floor.
2. Hold onto the grab bar.



3. Lean your body forward and lift your buttocks.
4. Turn towards the toilet bowl.



5. Slowly lower yourself onto the toilet bowl.

Toilet Bowl to Wheelchair Transfer



Before transfer:

- Position wheelchair at a 30-degree angle facing the toilet bowl nearest to your intact leg.
- Apply both brakes and remove footrests.
- Swing away the wheelchair armrest nearest to the toilet bowl.



1. Move buttocks forward until intact leg is stepping firmly on the floor.
2. Reach your hand out to the opposite armrest of the wheelchair.



3. Lean your body forward and lift your buttocks.
4. Turn towards the wheelchair.



5. Slowly lower yourself onto the wheelchair seat.
6. Return the armrest and footrests to its original position.

Wheelchair to Car Transfer



1. Apply both brakes and remove footrests. Align rear wheel of wheelchair close to the door frame.
2. Move buttocks forward until intact leg is stepping firmly on the floor.



3. Place your hand on the car seat or overhead handle. Lean your body forward and lift your buttocks.
4. Pivot towards the car seat and slowly lower yourself onto the car seat. Once firmly seated, bring your leg into the car.
5. Seek assistance to keep the wheelchair into the car boot.

If you are wearing a prosthesis during car transfer:

Adjust the passenger seat as far back as possible before transferring, to accommodate the prosthesis.



Car to Wheelchair Transfer



1. Place wheelchair close to the car seat. Apply both brakes and remove footrests.
2. Bring intact leg out of the car and move your buttocks forward until your leg is stepping firmly on the floor.



3. Reach your hand out towards the opposite armrest of the wheelchair. Lean your body forward and lift your buttocks.
4. Pivot towards the wheelchair and slowly lower yourself onto the wheelchair seat.
5. Return footrests to its original position.

Fall Recovery – Forward Method



1. Roll onto the side and use both hands to push yourself into sitting.



2. Crawl or bottom shuffle to a stable surface (e.g. bed, sofa or locked wheelchair).



3. Roll towards intact leg and get into 4-point kneeling.



4. Place both arms on stable surface and get into 2-point kneeling.



5. Bring intact leg forward and place foot firmly on the ground.



6. Push off with intact leg into standing.



7. Pivot on intact leg and sit on stable surface.

Fall Recovery – Backward Method



1. Roll onto the side and use both hands to push yourself into sitting.



2. Crawl or bottom shuffle to a stable surface (e.g. bed, sofa or locked wheelchair).



3. With your back towards the stable surface, place both arms on the stable surface approximately hip-width apart.
4. Bend intact leg. Push off with intact leg and both arms.
5. Lift buttocks and sit on stable surface.

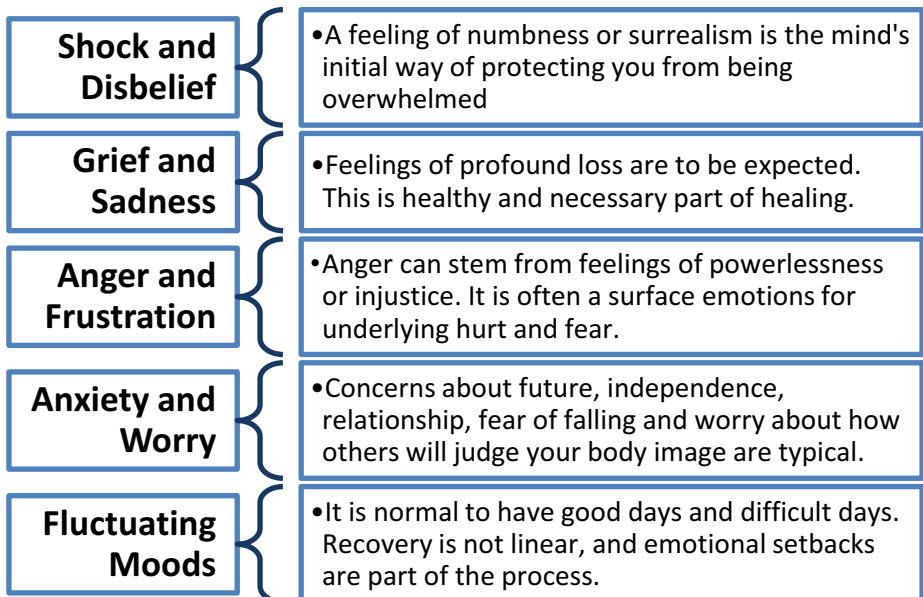
Psychological Adjustment Post-Amputation

Undergoing an amputation is a significant life event that involves not only physical recovery but also a process of psychological adaptation. It is common to experience a wide range of emotions as you adjust to new realities.

This section is designed to provide you with a fundamental understanding of the emotional process and offer practical coping strategies to support your emotional well-being. Please view this as a companion on your path to recovery.

Understanding the Emotional Response

Your emotional experience after amputation is a normal reaction to a significant life event, they mirror a process of grief, as you are coping with the loss to a part of yourself. Common and valid reactions include:



While the feelings above are normal, sometimes they can be more intense, persistent and interfere with your daily life. This may indicate the presence of depression and anxiety disorders if you experience many of the symptoms below for more than 2 weeks.

Please speak to your doctor to obtain a referral to psychologist for psychotherapy to help address your mood concerns and be supported emotionally.

•Depression

- Persistently sad or feeling "empty"
- Persistently fatigue and lack of interest or motivation
- Eat or sleep too little or too much
- Irritability, slow in thinking, difficulty focusing
- Feeling of worthlessness or lack of meaning in life
- Recurring thoughts about harming yourself or suicide

•Anxiety

- Excessive or uncontrollable worry
- Difficulty concentrating or mind going blank
- Feeling sense of impending doom, panic or helplessness
- Poor sleep and appetite due to unmanageable worry
- Experiences symptoms such as breathlessness, palpitation, trembling, muscle aches due to anxiety

If you are feeling suicidal or have suicidal thoughts, it is encouraged that you speak to your loved ones or call suicide prevention hotline for support. You may go to nearest hospital's emergency department to seek for urgent professional assistance should you find it hard to manage it by yourself.

Suicide Prevention Hotline

Samaritans of Singapore	National Mindline	Institute of Mental Health
24-hour Hotline: 1767	24-hour Hotline: 1771	Mental Health Helpline: 6389 2222
24-hour Text: 9151 1767 (via WhatsApp)	24-hour Text: 6669-1771 (via WhatsApp);	

Practical Coping Strategies for Emotional Well-being

The following strategies are recommended to help you build resilience and foster a positive adjustment.

1. Acknowledge and Process Your Emotions

- Seek emotional support: Speak openly to your loved ones or trusted person (e.g., partner, family member, friend, spiritual leader) to be supported.
- Seek for professional help early: Psychiatrist may provide you with mood medication, if necessary, whereas psychologist does psychotherapy, for you to learn managing your mood more adaptively.
- Connect to peers: Attend support groups, either in-person or online, to connect you with others who share similar experiences. This can help to reduce feelings of isolation and provide practical, lived-experience advice.

2. Cultivate Adaptive Thinking Patterns

- Reframing thoughts: It is not unusual that one tends to think more negatively when in low mood, if you notice yourself doing so, you may reframe them to be more neutral or based on facts.
 - For example, you may shift your thoughts from "I can't do anything" to "I am learning new ways to do things, and I will start with small, manageable tasks."
- Practice self-compassion: treat yourself with the same kindness and understanding you would offer a close friend. Acknowledge your challenges without self-criticism.

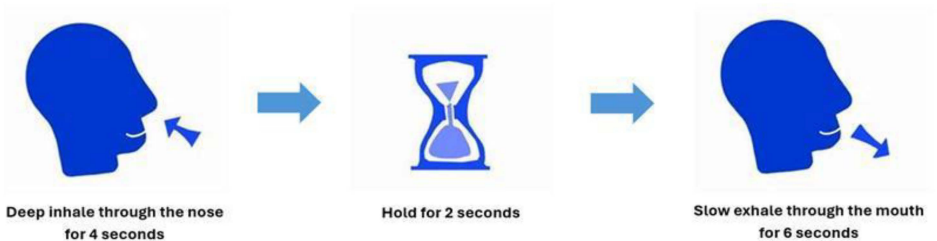
3. Establish Structure and Control

- Set Manageable Goals: Break down your recovery into small, achievable steps. Completing these tasks, no matter how small, to give you a sense of accomplishment and reinforces your sense of agency.
- Maintain a Routine: Creating structure in your day, such as consistent wake times, meals, and therapy sessions, to provide predictability and stability, which can be calming during a period of change.

Practical Coping Strategies for Emotional Well-being

4. Integrate Mind-Body Practices

- Gentle Physical Activity: As approved by your medical team, engage in recommended physiotherapy and gentle movement. Physical activity is a proven mood enhancer due to the release of endorphins.
- Stress Reduction Techniques: Practices such as deep breathing and mindfulness relaxation can lower physiological arousal and help managing your intense emotions.
- Deep breathing: Sit comfortably and place one hand on your abdomen. Breathe in through your nose, deeply enough that the hand on your abdomen rises. Hold the air in your lungs, and then exhale slowly through your mouth, with your lips puckered as if you are blowing through a straw. The secret is to go slow.
- Time of inhalation (4s), pause (2s), and exhalation (6s). Practice for 3 to 5 minutes.



Moving Forward: Reconstructing Your Identity and Purpose

An amputation is a pivotal event, but it does not define your entire identity. The process of adaptation involves integrating this experience into your life story and rediscovering your capabilities.

- Explore New Avenues for Engagement:
 - Be open to adapting previous hobbies or discovering new interests that are fulfilling and align with your current abilities. You may speak to your therapists for recommendations on adaptation.
- Focus on Abilities:
 - Shift your focus from what has been lost to what remains and what can be achieved. The human capacity for adaptation is remarkable.
- Connect with Your Body Positively:
 - While challenging, working towards a stance of body acceptance is beneficial. This involves respecting your body for its resilience and the functions as it continues to perform.

Summary

- Your journey of psychological adjustment is unique and will unfold at its own pace.
- The strategies outlined here are tools to empower you along the way. Progress may be gradual, and it is important to acknowledge your strength and courage throughout this process.
- You are not alone. Leverage your support systems, be patient with yourself, and recognize each step forward, no matter how small.

Disclaimer: This guide provides general psychological information and is not a substitute for personalised advice from a qualified mental health or medical professional. Please reach out to your healthcare team for more individualised support.

Preparation of Home Environment

In Your Bathroom or Toilet

- Do discuss with your occupational therapist the safest way to access the toilet to prevent unnecessary falls.
- Avoid hopping on wet floor.
- Avoid using your towel rails and shower head holder for support as they are movable and not meant to support your weight.

Ensure you have a **stable chair** to sit on for your showering and dressing tasks.



Ensure the items you need such as toiletries, towel and clothes are **within easy reach**.

Use of **grab bar(s)** to stabilize yourself during transfers to access the toilet and during standing when doing your self-care tasks

Other Areas of Your House



Rug without non-slip mat



Place rug over non-slip mat



Obstacles or clutter along walking path



Remove clutter such as electrical cords, toys and loose rugs from walking path. Maintain the cleanliness of your house to minimise risk of infection. Use a chair with an appropriate seat height for ease of standing up.

Caring For Your Intact Leg

Daily washing of foot

- Avoid hot water when washing foot
- Use mild soap that do not dry your skin
- Clean in between toes
- Dry thoroughly after washing (especially between toes)



Checking Your Intact Foot

Check for:

- Wounds, cuts, blisters and skin tears. If wound is present, to refer to page 39 on how to take care of your wound
- Callus (hardened skin) with discolouration caused by bleeding or an underlying wound



Bleeding under callus



Removal of overlying callus reveals an underlying wound

Check all areas of your feet including:

- Spaces between your toes
- Back of your heels
- Soles of your feet

If you are unable to bend over to check under your feet, please use a mirror. If you have poor eyesight, ask a family member or friend to help.

Caring For Your Skin and Nails

Skin Care:

- Apply moisturiser to your foot 2 times a day. Do not apply in between your toes.
- **DO NOT** cut or shave any corns or hard skin. Apply moisturiser to the area to soften the skin.
- **DO NOT** use corn plasters or acid. Please seek your podiatrist for assistance.



Nail Care:

- Trim nails straight across, use a nail file to smoothen sharp or jagged edges.
- File toenails in one direction and away from your feet
- Do not cut down the corners of the nail



Caring For Your Stump

Daily Inspection of Your Stump

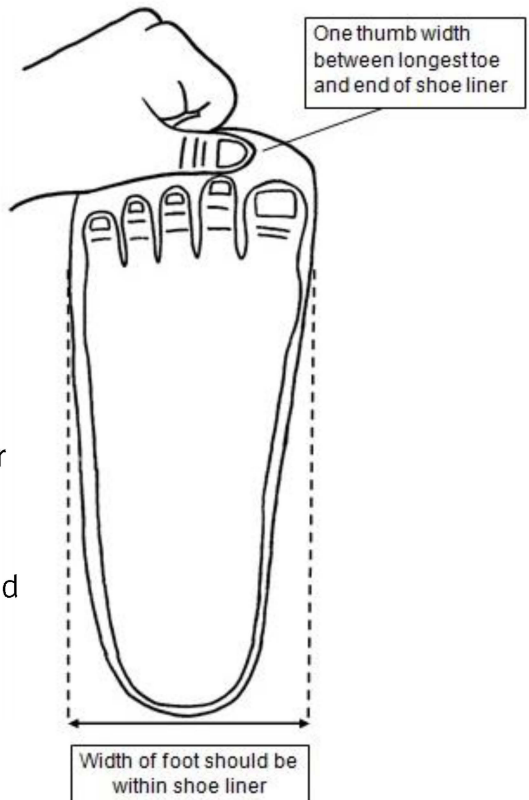
- Observe for abnormal signs like change in colour, swelling and warmth
- Check for wounds, cracks and/or bleeding

Daily Cleaning of Your Stump

- Avoid hot water when washing your stump
- Use mild soaps that do not dry your skin
- Dry thoroughly after washing

Footwear

- Wear shoes which cover your toes and provide good support
- Wear socks with your shoes
- Always check the inside of shoes/socks for sharp objects, stone or debris before you wear them
- If you are using a new pair of shoes, try them indoors first, and stop using the shoes if you encounter any issues
- Use the guide on the right to choose the correct shoe size



Simple Wound Care

In the event that you sustain a wound, you are advised to dress the wound.

1. Cleanse wound with clean water (or sterile saline).
2. Dress with antiseptic solution and plaster. You may use an antiseptic solution or cream that has been provided by a healthcare professional. Do not apply non-prescribed solutions (e.g. TCM) onto the wound.
3. Ensure wound is kept covered at all times and do not get it wet. Re-dress if the dressing gets wet.
4. Change the dressing every day unless otherwise advised by a healthcare professional.



Warning Signs

You must seek immediate medical attention if you see the following signs:

- Redness, warmth, swelling or pus
- Sudden or increased pain
- Wound does not improve in 1 week
- Sudden changes to skin colour (i.e. black, dark red or purple)
- Systemic symptoms - fever, chills



Wound infection:
Redness, warmth and swelling.

Preparation for Prosthetic Phase

Prosthesis replaces a missing limb. It aims to restore:

- Body image
- Body symmetry (balance the body)
- Function (walking, working, sports)

Prosthesis components are fitted together by the P&O.

Your rehabilitation team will advise you when you are ready for a prosthesis. Once you are ready, you will be measured for your prosthesis and fitted subsequently. This process may take a few months.



Examples of below-knee prostheses

If you are not suitable to have a prosthesis, you will be offered to make a cosmetic leg. A cosmetic leg is to be worn only on wheelchair and not for standing or walking.



Examples of above-knee prostheses

Pneumatic Post Amputation Mobility Aid (PPAM aid)

The PPAM aid is used to prepare you for wearing a prosthesis. It is suitable for both below-knee and above-knee amputees.

Some benefits of using a PPAM aid include:

- Re-education of symmetrical gait, posture and balance
- Reduce swelling over your stump

You will be able to start using the PPAM aid when there is no open wounds or when your doctor allows at least partial weight bearing over your stump.



There are some criteria you need to fulfill before proceeding to the prosthetic phase

Some considerations include:

- Have a well-healed surgical wound
- Have minimal swelling in your stump
- Not have any wounds or injuries on your intact leg that may stop you from standing
- Be able to maintain standing with the help of your arms for more than 30 seconds
- Be able to walk in the parallel bars with PPAM aid for at least 2 rounds
- Have approved funding for the prosthesis (if required)

Making and Getting Your Prosthesis

Casting

Your P&O will measure the size and mould the shape of your stump. Subsequently, your mould will be used to fabricate your prosthesis.

Fitting

Your P&O will fit the prosthesis on you and make adjustments based on your standing and walking positions. It can take more than one session to fit and adjust the prosthesis.



What to Expect with Your Prosthesis

When you first start using your prosthesis, you may experience:

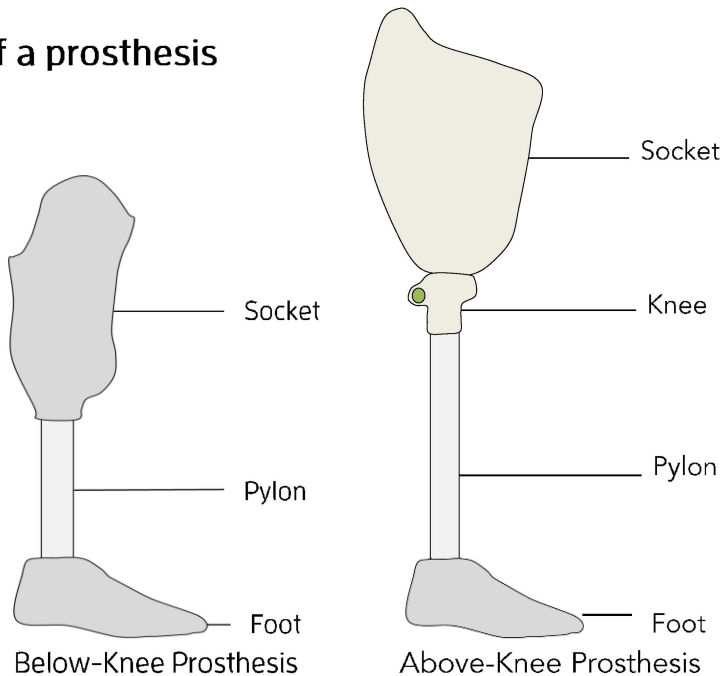
Discomfort

- Only some compressive discomfort should be felt.
- If it is too much discomfort for you, or if you encounter any other issues with your prosthesis, please inform your P&O or physiotherapist.

Skin breakdown

- It is important to do frequent and regular stump checks as your skin may not be used to wearing your prosthesis and may develop abrasions or blisters especially in the early phase.
- You will need to stop using your prosthesis temporarily until your wound heals.
- Simple wound care will prevent it from getting worse.

Parts of a prosthesis



Over the course of using your prosthesis, you may expect:

Volume changes

- Your stump may become bigger if you put on weight. Hence weight control is important to ensure good fitting.
- Your stump is expected to become smaller as you begin to use your prosthesis more regularly.
- If your socket feels loose after some time, you may need to wear more socks. Your physiotherapist or P&O can teach you how to manage your socket fit with varying layers of sock.
- Changes in your stump volume is common if you have heart or kidney conditions. You may have to adjust the number of socks you wear accordingly and comply to fluid restriction and medication advice.

Remaking of sockets

- As your stump gets smaller over time, increasing the number of socks may no longer result in a comfortable socket fit.
- You may therefore need up to 2 socket changes within the first 2 years.



Prosthetic Rehabilitation

Learning to Use Your Prosthesis



Once you get fitted with your prosthesis, you will continue working with your physiotherapist to learn how to use your prosthesis effectively. This will include:

- Learning to wear and take off your prosthesis
- Walking
- Balancing
- Crossing obstacles

You may need to use walking aids in the initial months to walk safely, but it may change as you progress. At different points, your physiotherapist will test you on your walking and balancing progress.



Bringing Your Prosthesis Home

You may be able to bring your prosthesis home to practise once:

- You or your carer knows how to wear and take off your prosthesis correctly
- You understand the advice given by your physiotherapist or P&O on safe home practice
- Your prosthesis is fitting well with minimal discomfort

Using Your Prosthesis Safely At Home

- Ensure your house is not cluttered with obstacles on the floor, so that you have a safe path to walk.
- When you first start walking with your prosthesis, make sure you check your stump frequently, about every 5-10 minutes of walking or standing. This is to ensure that your skin is able to tolerate the pressure, and to prevent blisters or abrasions from happening. If blisters or abrasion do form, stop using your prosthesis until the wound heals. Pressure on wounds will result in slow healing of the wounds and slow down your rehabilitation progress.
- Walk only with the walking aid and the distance that your physiotherapist has advised.
- Your prosthetic rehabilitation does not end when you take your prosthesis home. Your rehabilitation team will continue to work with you until you have reached the goals you set together.

Caring for Your Prosthesis

Cleanse your socket with clean cloth or wet wipes regularly

- Excessive moisture in your socket can cause abrasions and discomfort.
- Build up of moisture can also cause fungal infection.

Change stump socks daily, wash socks after use

- Ensure that you have sufficient socks for daily change.
- If you notice any bruising or blistering on your stump after using your prosthesis, stop using your prosthesis until further advice from your rehabilitation team.

Do not modify your prosthesis

- Do not use extra padding or cushioning in your socket as it may affect the fitting.

Footwear

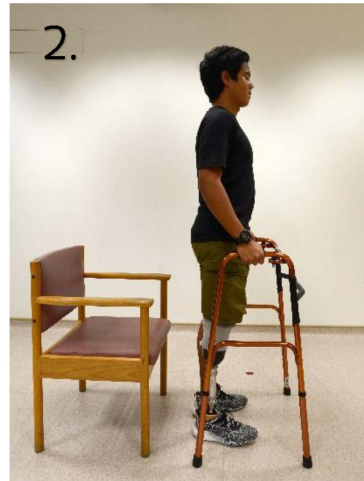
- Ensure that you are wearing footwear when using your prosthesis indoors and outdoors.
- Footwear should be similar to the one that you wore for prosthesis fitting session.
- If in doubt, bring your new footwear to your P&O appointment for assessment.

Prosthetic Exercises



These exercises can help you improve your stability with your prosthesis. Your physiotherapist can guide you through them during your appointment and you may continue to practise them at home.

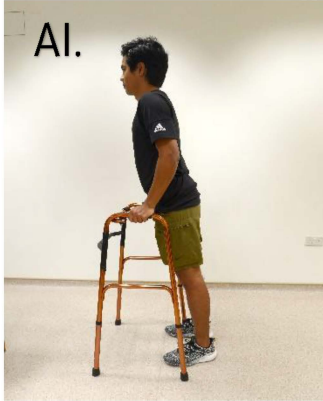
Sit to Stand



1. Sit in a chair with a back and arm rest. Place a walking frame in front of you.
2. Push up to stand with the help of your arms, and ensure you are upright. You may hold on to the walking frame for balance.

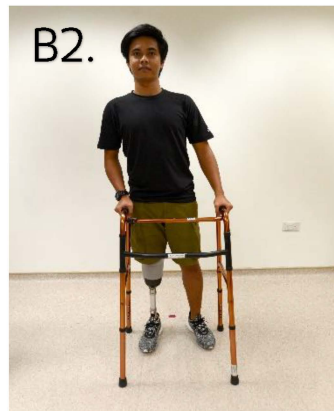
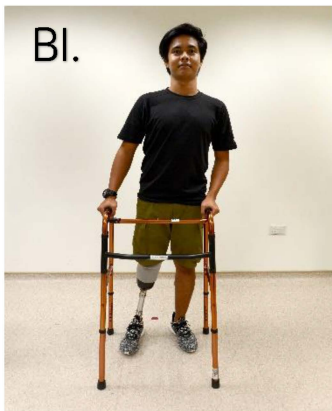
Weight Shifting Practice

In standing position, hold on to a walking frame. You may use your arms for support and balance. If you feel unsteady, get someone to stand by you.



A1. Lean forward by shifting your body weight towards the toes of both feet.

A2. Shift your body weight towards the heels of both feet. Repeat 10 times.



B1. Shift your body weight to your intact leg. Hold 5 seconds.

B2. Shift your body weight to your prosthesis. Hold 5 seconds. Repeat 10 times.

Stepping Practice



1. In standing position, hold on to a walking frame. If you feel unsteady, get someone to stand by you. You may also wish to place a chair behind you in case you need to sit when you get tired.
2. Take a step with your intact leg forward. Hold 5 seconds. Remember to put most of your weight on your prosthesis.

Functional Assessments

Your rehabilitation team will monitor your progress by using the following:

1. Amputee Mobility Predictor
2. 10-metre walk test
3. 6-minute walk test
4. Amputee Single Item Mobility Measure

Record your progress in Functional Test Results (page 57), and celebrate any milestones that you have achieved.

Reintegration to Community

End of Prosthetic Rehabilitation

Once all your goals are met, you will be discharged from Physiotherapy.



- You will have a review with your P&O within 3 months after discharge to ensure that your prosthesis is working well.
- You should also continue to review with your P&O every year after the first review to ensure that your prosthesis is functional and that fitting remains optimal.

Returning to Driving

- Speak to your rehabilitation doctor if you are keen to return to driving.
- A referral can be made to the Driving Assessment and Rehabilitation Programme (DARP) after you have achieved optimal function in community mobility with or without wheelchair.
- DARP will be conducted by a trained occupational therapist and the assessment may involve modifications such as a left foot accelerator or hand controls.
- Upon successful completion of DARP, you will need to obtain certification on medical fitness to return to driving by your doctor.

If you were not driving before and keen to learn driving, you will need to speak to your doctor to obtain medical certification to learn to drive. Your doctor may refer you to DARP for further assessment prior to that.

Returning to Work and Sports

There are many different organisations in Singapore that cater to the needs of people with physical disabilities, be it social support, returning back to the workforce, or sporting activities to maintain your physical well-being. You can start to think about them even before the end of your prosthesis rehabilitation.

Talk to your rehabilitation team to find out more about the organisations and programs available.



Photo courtesy of Össur ASEAN

Subsidies and Assistance Schemes

We understand that you may have concerns financing your prosthesis and rehabilitation. The following schemes may be able to assist you:



Seniors' Mobility and Enabling Fund (SMF)

- Subsidies are available to assist elderly Singaporeans with the cost of assistive devices or healthcare items.

Assistive Technology Fund (ATF)

- Subsidies are also available to assist younger Singaporeans and Singapore Permanent Residents with regards to the cost of assistive devices. This fund can be used to acquire, replace, upgrade or repair assistive devices.

For both ATF and SMF applications, please approach your rehabilitation team for assistance. You will have to meet the eligibility criteria to qualify for these schemes.

Medifund

- Medifund is a safety net for Singaporeans who face financial difficulties with their remaining bills after Government subsidies. Applications will be assessed holistically, taking into consideration you and your family's health and social circumstances.

You can approach a Medical Social Worker for further information and assistance.

Care Resources

If you have difficulties managing your care or the care of your loved ones, you can consult your rehabilitation team for advice.

General Care Information

www.silverpages.sg

Singapore Silver Line: 1800-650-6060

Care Information & Assistance

AiCare Link @ Tan Tock Seng Hospital

CareConnect, Level I, Atrium

Psychosocial Support, Care & Financial Assistance

Care and Counselling Department

Basement 2, Tan Tock Seng Hospital

Hotline: 6357 8222

Amputee Support Group

The Ang Mo Kio - Thye Hua Kwan Hospital and Tan Tock Seng Hospital Amputee Support Group (ASG) was formed in 2011.

ASG aims to:

1. Provide a platform for the members to share issues and challenges faced in life after amputation
2. Allow professionals to effectively share information for management of different conditions
3. Establish and maintain a social support network for the members
4. Address the psychosocial needs of members
5. Minimise the risk of social isolation

The ASG organises monthly gatherings on the last Friday or Saturday of each month.

Amputee
Support
Group

If you are keen to participate, please contact your rehabilitation team for more information. ASG Signup links can also be found on the Amputee Support Group Singapore Facebook page



Keeping Track of Your Progress

Setting Goals

Goals help you focus and set the direction for your rehabilitation. It should be realistic and attainable. Start by thinking about what is important to you. What are some of the daily activities that you want to be able to do?

I want to be able to: _____

Setting a specific time frame in which to achieve your goal allows you to measure your success.

I want to complete my goal by: _____

Once you have set your long-term goal, create short-term goals to be achieved along the way. This will help you celebrate your small wins, and show yourself that you are progressing.

1.

2.

3.

Functional Tests Results

Test	Date	Score	Remarks
Amputee Mobility Predictor			
10-metre walk test			
6-minute walk test			
Amputee Single Item Mobility Measure			

Test	Date	Score	Remarks
Amputee Mobility Predictor			
10-metre walk test			
6-minute walk test			
Amputee Single Item Mobility Measure			

Test	Date	Score	Remarks
Amputee Mobility Predictor			
10-metre walk test			
6-minute walk test			
Amputee Single Item Mobility Measure			

Monitoring Your Sock-Ply

Appointment Type	Date	Sock-Ply
First P&O Fitting		
First Physiotherapy		

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Foot Care & Limb Design Centre
Blk IOI, Jalan Tan Tock Seng

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6357 7000 (Central Hotline)

Opening Hours:
Monday to Friday
8am to 5pm

Saturday, Sunday & Public Holiday
Closed



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