

A discussion guide for healthcare professionals to support decision making about partial foot amputation due to peripheral arterial disease

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A decision aid for people facing partial foot amputation due to peripheral arterial disease

This discussion guide is designed for healthcare providers to help patients engage in shared decision-making about partial foot amputation (PFA). It is only for use with patients who require amputation surgery due to peripheral arterial disease. It is designed to be used as an adjunct to the decision aid [A decision aid for people facing partial foot amputation due to peripheral arterial disease](#) and is designed to help people in making two decisions:

1. Between levels of partial foot amputation, or
2. Between partial foot and transtibial (below knee) amputation.

You should consider the discussion guide a conversation starter. It has been designed to highlight the most important topics of conversation. While the same topics are covered in the Decision Aid and the Discussion Guide, the different purposes of the resources influence the level of detail. For example, the decision aid is designed to help patients develop an understanding of the evidence of outcomes of partial foot (PFA) and transtibial (TTA) amputation and therefore includes information in plain language. By contrast, the discussion guide is designed to be used by a healthcare professional to facilitate a conversation. It includes summaries of the evidence on key topics to help inform the discussion. These summaries come from the systematic review: *“Outcomes of dysvascular partial foot amputation and how these compare to transtibial amputation: a systematic review for the development of shared decision-making resources”¹*.

We have included a suggested introduction to each conversation and have then provided a chronological list of outcomes that mirrors the shared decision-making aid. These topics of conversation include possible questions a patient may ask, example phrases that may be helpful to start a conversation, and a summary of the evidence. The example phrases are not intended to be the sole content of discussion on any topic; they are merely designed as ideas to help start conversations, and to help healthcare professionals contextualize information for particular patients. For further explanation of the evidence summaries, we encourage healthcare providers to read the above systematic review.



Conversation topics	Example patient questions and example conversation starter phrases
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Introduction

“I realize this must be a difficult decision for you and that you have already had a challenging journey. We need to talk about your surgery decision and I’d like to help you work through what we know. I have given you the Decision Aid to read and I’d like to talk with you about the information presented.”

Need for surgery

Patient question

Can’t I take some medicine and wait and see?
What will happen if we wait and watch?

Conversation starter

“It is not possible to wait too long. Unfortunately, we cannot use other treatments and amputation surgery is the only option to save your life. There are two decisions that we need to focus on:

1. Between different levels of partial foot amputation, or
2. Between partial foot and below knee amputation.”

Surgical options and procedures

Patient question

What does partial foot amputation surgery involve?
What does below knee amputation surgery involve?

Conversation starter

Outline the expected process for this patient for both procedures, including:

- Surgery?
- Time in hospital?
- Rehabilitation?

Wound healing



Patient question

I have had this ulcer for a long time. Will it take long for me to heal after amputation surgery?

Conversation starter

“About half of wounds heal within 3 months of surgery. Wound healing can take a long time for people who have a partial foot amputation. Three quarters of wounds heal within 1 year, but one quarter still haven’t healed 1 year after surgery.”

PFA levels

No evidence for differences in wound healing between PFA levels.

PFA overall

50% heal within 3 months
75% heal within 1 year

PFA compared to TTA

No evidence for differences in wound healing for PFA compared to TTA.

Complications



Patient question

What kinds of complications are common?

Conversation starter

“About half of people experience complications such as delayed wound healing, the wound splitting open, wound infection, or the wound never healing.”

PFA levels

No evidence for differences in complications between PFA levels.

PFA overall

40% experience complications

PFA compared to TTA

Similar rates of complications in PFA (40%) compared to TTA (30%)

Evidence note

Limited research suggests higher rates of complications in people with partial foot amputation, but we are uncertain about the time period in which these occur.

Ipsilateral amputation



Patient question

Will I need more surgery?

Conversation starter

“About one-quarter of people need another amputation surgery on the same leg after partial foot amputation.”

PFA levels

Evidence from one study suggests little difference in reamputation rates for different levels of partial foot amputation. 12 month reamputation rates were: Toe: 22%; Ray: 29%; ‘Midfoot’: 19%

PFA overall

Meta-analysis suggests 25% reamputation within 1 year; this rises to 50% at 5 years.

PFA compared to TTA

Data from one study suggests similar reamputation rates for PFA (35%) and TTA (33%).

Quality of Life



Patient question

How would these surgeries affect my ability to enjoy life?

Conversation starter

“There hasn’t been a lot of research, but it seems that Quality of Life is very similar between people with partial foot amputation and those with below knee amputation.”

PFA levels

No evidence for differences in Quality of Life between PFA levels. Unlikely to be differences, given that differences have not been shown between PFA and TTA.

PFA overall

One study suggests a reduced Physical Component Score of SF-36v2 compared to population norm, but no appreciable difference in Mental Component Score.

PFA compared to TTA

No statistically significant differences in Quality of Life between PFA and TTA.

Evidence note

Quality of Life appears to be influenced by factors such as older age, more time with diabetes and the presence of retinopathy, but not by amputation level.

Mobility



Patient question

Will I walk again?

Conversation starter

“Most people walk again after a partial foot amputation. We don’t have a lot of research, but most people lose some mobility compared to before illness and amputation. This might mean that, if you did not use anything before your amputation, you may need to start using a mobility aid, like a walking stick.”

PFA levels

No evidence for differences in mobility between PFA levels.

PFA overall

12 months after transmetatarsal amputation surgery, 35% of people regain pre-morbid mobility.

PFA compared to TTA

At 12 months, the number of people who regain pre-illness mobility is similar in those with PFA (35%) compared to TTA (41%).

Psychosocial



Patient question

Will I be depressed?

Conversation starter

“There has not been any research about psychosocial outcomes like depression, in people with partial foot amputation, or how these compare to people with below-knee amputation. However, problems such as depression are common in people with lower limb amputation. We do not know if you will experience any of these kinds of problems, but let’s talk about a plan in case you do.”

- No studies have investigated psychosocial outcomes for people with PFA, or how these compare to people with TTA.
- More generally, psychosocial impacts of amputation have been shown in areas such as depression, body image, sexuality, psychological adjustment to amputation and life goal adjustment.
- It is reasonable to expect that issues such as depression may affect people with PFA and those with TTA.

Pain



Patient question

Will I have problems with pain?

Conversation starter

“There has not been any research about pain in people with partial foot amputation, or how this might compare to people with below-knee amputation. However, pain problems including nerve pain and phantom limb pain are common in people with lower limb amputation. We do not know if you will experience any of these kinds of problems, but let’s talk about how pain is managed after amputation.”

- No studies have investigated pain outcomes for people with PFA, or how these compare to people with TTA.
- Pain issues such as phantom limb pain have been investigated in broader lower limb amputee populations.
- It is reasonable to think that pain issues may affect people with PFA and those with TTA.

Death (Mortality)



Patient question

Why is this decision aid talking about death?

Conversation starter

“It is important that we talk about this because many people die in the years following lower limb amputation. We think that the risk of dying is related to how sick you were before your amputation, not about whether you have a partial foot or below knee amputation.

Given this understanding, it is a good idea to think about what is important to you in the next few years of your life.”

PFA levels

Evidence from one study suggests little difference in proportionate mortality rates for different levels of PFA. At 12 months, rates were: Toe: 33%; Ray: 25%; ‘Midfoot’: 26%.

PFA overall

Meta-analysis suggests 17% proportionate mortality at 1 year; this figure rises to 41% at 5 years.

PFA compared to TTA

Lower proportionate mortality in PFA compared to TTA at 12 months (PFA: 17%; TTA: 34%) and at 5 years (PFA: 40%; TTA: 55%).

Evidence note

While proportionate mortality is higher following TTA, this may not be due to amputation level. It is likely that the higher mortality is associated with common comorbid health conditions such as renal disease, congestive heart failure and cerebrovascular disease¹. Lower mortality rates are observed in younger people and those having their first amputation.

Review Summary Tables

Conversation starter

“Let’s have another look at the summary tables in the decision aid so we can review what we know.”

Understanding and evaluating options

- “What are your greatest concerns about surgery?”
- “What are your greatest concerns about life with partial foot amputation?”
- “Based on what you have read, which type of surgery would be your preferred option?”
- “Do you have a strong preference for either type of surgery (PFA or TTA)?”
- “Are there things you do not understand?”
- “What are the important things for you?”
- “What else can I do to help you with this decision?”

Decision

“Have you made a decision about your amputation?”

Further information

Do you have any other questions?
Do you need more information about anything we have discussed today?

Schedule follow-up

Schedule follow-up appointment with the patient to confirm decision or to discuss further.

About this Discussion Guide

- This Discussion Guide was developed using guidelines from the International Patient Decision Aid Standards Collaboration^{2,3}.
- Research included in this Discussion Guide comes from a systematic review that included studies of people with partial foot and/or transtibial amputation¹.
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- **References:**

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