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# A Qualitative Analysis of the Decision-Making Process for Patients with Severe Lower Leg Trauma

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# Abstract

**Background**—Choosing the appropriate treatment for grade IIIB and IIIC open tibial fractures is a difficult decision for both the patient and the physician. Current research shows that the functional outcomes for reconstruction are similar to those for below-knee amputation, but little investigation of the qualitative outcomes of either treatment option has been done from the patient perspective. This study was designed to perform a qualitative analysis of patient preferences for amputation or reconstruction.

**Methods**—20 patients with type IIIB or IIIC open tibial fractures participated in the study. These patients had undergone either amputation or reconstruction between 1997 and 2007. Semi-structured interviews were conducted and qualitative outcomes were assessed.

**Results**—Interviews highlighted several issues involved with medical decision-making. Participants described not having a role in deciding which medical treatment to choose. Family and spouses played a greater role, often due to patients' being medicated when needing to make a treatment choice. Both amputation and reconstruction patients described being satisfied with the outcomes of their surgical treatments, but also expressed second thoughts about their treatment choices.

**Conclusions**—The findings of this study emphasize how difficult it is to assign preference to one medical treatment over another. The study reveals how the role of the patient is limited in making a decision about pursuing amputation or reconstruction. Instead there is a continued need for physicians to discuss treatment options and risks with family members who act on the patient's behalf, as well as incorporating the patient's preference in this complex decision.

# Keywords

lower leg trauma; amputation; reconstruction; decision-making; qualitative research

The damage caused by grade IIIB and IIIC open tibial fractures involves severe soft tissue trauma, bone exposure, stripping of the periosteum and compromised vascularity of the lower limb. (1) Until recently, below-knee amputation was the standard practice to treat this kind of lower limb injury, but recent advances in surgical techniques, including

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microvascular surgery and improvements in wound care technology, have increased the rate of successful lower limb reconstruction for this patient population. (2–4) Still, the decision of how to manage this injury is debated in the clinical setting by both physicians and patients. Current research has shown minimal difference in functional outcomes between patients who have below-knee amputation and those who have lower limb reconstruction following a severe open tibial fracture. (5)

In an attempt to assess which management option is best for patients with severe open tibial fractures, several studies have evaluated the two treatments, comparing their functional outcomes and complications. (6–10) Researchers with the Lower Extremity Assessment Project (LEAP), a prospective, longitudinal multi-center study focusing on lower extremity trauma below the distal femur, found no difference in functional outcomes or quality of life, as measured by the Sickness Impact Profile (SIP), at the two-year and seven-year post-injury mark. (6,11) This study also found that none of the currently available injury severity scoring systems are good predictors of functional outcome as measured by the SIP. (12)

Other studies have looked at the physical, emotional and financial burdens in an effort to evaluate the differences between these two treatment options. Current research has shown that patients who undergo limb salvage experience greater complication rates and require more operative interventions than those who undergo amputation. (5,6) A different study found that although the two-year costs for reconstruction and amputation are similar, the projected life-time costs of amputation are three times higher than that of reconstruction, primarily due to costs associated with prostheses (\$509,275 compared to \$163,282.) (13) In fact, a recent study using cost-utility analysis showed that limb salvage is both less expensive and has higher utility than amputation. (14) Other studies have identified the significant psychological impact that lower-extremity trauma has on patients, including depression and severe phobic anxiety. (15–17) One such study showed that patient satisfaction after treatment is predicted by function, pain and the presence of depression two years after injury, not by the severity of the injury, type of treatment or sociodemographic characteristics of the patient. (18)

Evaluating the current literature on outcomes of type IIIB and IIIC tibial fractures, a 2008 review found neither limb salvage nor amputation provides significantly better outcomes than the other. (5) In spite of this fact, limb reconstruction is often the preferred choice of surgeons, and it is performed at a higher rate than primary amputation. (19) There has been limited qualitative research on lower-extremity trauma, particularly in comparing the outcomes of patients with below-knee amputation to those with lower limb reconstruction. (20–22) Using qualitative research to evaluate these two treatment options will ultimately give a more comprehensive understanding of the consequences of amputation and reconstruction, because quantitative measures identify variables to test experimentally, whereas qualitative methods focus on the context and meaning behind a particular issue.(23) In essence, quantitative research addresses the question of what, whereas qualitative research addresses the questions of why and how.(24) The qualitative methods used in this study target factors that cannot otherwise be identified or assessed with quality of life or psychological inventories. Although previous research has identified the various psychological sequelae that follow lower-extremity trauma, these quantitative studies do not identify how these sequelae take shape during the recovery process and how patients cope with the effects of the injury and surgical treatments.(25) The qualitative methodology used in this study addresses these issues by capturing the richness and depth of experience of each patient participant. In an effort to understand why patients and physicians prefer reconstruction, despite the lack of conclusive evidence supporting the superiority of either treatment option, this study looked at the medical decision-making process from the patient point of view using qualitative research methods. The study aims were to identify the

patients' preferences and understanding of their injuries in order to shed light on how to better evaluate below-knee amputation versus lower limb reconstruction.

# **Materials and Methods**

Grounded theory was used to guide both data collection and analysis. Grounded theory is a research method that emphasizes the generation of theory from data systematically collected and analyzed. Data collection often takes place in the form of open-ended or semi-structured interviews. (26,27) This is followed by the coding of data, a rigorous, multi-step process that ultimately allows a theory to emerge. The data are analyzed after several levels of review and coding take place, and results are finally extracted from this coded data, focusing on theoretical insights into social phenomena that could not otherwise be described through quantitative analysis. (28)

# Study Sample

We reviewed the medical records of all patient receiving flaps (CPT codes 15610, 15650, 15783, 15756, 15757 and 15758) or below knee amputation (CPT codes 27880-27886) at one institution between 1997 and 2007. Patients receiving these procedures as treatment for type IIIB or IIIC open tibial fractures were identified. Further exclusion criteria included deceased patients and patients whose primary address was outside the state. We also excluded patients with traumatic brain injury due to the difficult recovery process following this kind of injury. (29) Likewise, patients who were involved in fatality accidents were excluded due to the adverse psychological effects that ensue during the recovery period. We ultimately identified 53 eligible patients. Patients were invited to participate via mailed letter and received a \$100 gift card for their participation. Twenty participants (38%) completed interviews. Participant demographic data are presented in Table 1. This project was approved by the Institutional Review Board of the University of Michigan Medical School.

## **Data Collection**

Participants were interviewed in-person. All 20 interviews were conducted by the same research team member (MSA) to maintain consistency throughout the data collection process. The interviews were semi-structured using a standard interview guide, allowing for the patient to address questions directly and to elaborate on any other issues that were of concern or interest to them. The interviews were audio-recorded, obviating the need for note-taking. This focused the interviewer's attention on the participant, fostering a more conversational atmosphere during the interview. Of the 20 participants, 16 were interviewed alone; 3 participants had a spouse sit in on the interview and one participant's daughter was present. We invited visitors to add to the responses when they felt it would be helpful, although all questions were directed to the participant, we have noted this in the transcribe text.

### Data Analysis

Audio-recorded interviews were transcribed verbatim by members of the research team. Data analysis proceeded according to grounded theory methodology. Two members of the research team independently reviewed the transcripts. Using separate coding with multiple team members, rather than group coding or coding by a single investigator, helps to eliminate some of the biases inherent to the personal interpretation of interview transcripts. (30) After separate coding, open coding was then applied to the transcripts, whereby key phrases and sentences were highlighted. After the open coding was completed by both reviewers, the research team met and collaborated on their discrete findings. Through comprehensive review and discussion, a codebook was generated that included more

focused coding with categories, codes and sub-codes. The transcripts were re-read once more with the application of the codebook. The reviewers met again to assess concordance with coding and resolve any discrepancies. The final coded transcripts were then analyzed to identify which codes occurred most frequently and within which patient groups.

# Results

The categories, codes and sub-codes that emerged from the participant's interviews are found in Table 2. For the purposes of assessing how patients perceive their own injury in assigning preference to one treatment option over the other, the category of *medical decision-making* codes was examined in greater detail. The specific quotations chosen for each section were deemed particularly representative of the relevant themes that emerged from the data analysis.

# Medical Treatment: Long term satisfaction

Of the four participants who had undergone primary amputation, two patients exclusively expressed long-term satisfaction with the outcomes of their surgery.(Table 3) The other two patients described more frustrations with their experience, because of other complications and the need for multiple operations. Of the five participants who had undergone secondary amputation, all participants expressed long-term satisfaction with their surgical outcomes. All of the remaining 11 participants who had undergone reconstructive procedures expressed overall satisfaction with the results of their operations, though there were notable complications along the way. One participant described the frustration with having osteomyelitis three years following reconstructive surgery for her type IIIB tibial fracture, after which the intramedullary rod in her leg broke. Another participant described his initial angered reaction to having his dominant, right latissimus dorsi used for limb salvage.

# **Treatment second thoughts**

Of the 20 participants in the study, six participants explicitly described having second thoughts about their surgical treatment. (Table 4) Four of the 11 reconstructive patients expressed having doubts about reconstruction and a desire to know what amputation would have been like instead. Two of the five secondary amputation patients expressed concerns about having made the right choice to amputate instead of attempting yet another reconstructive procedure.

## Medical Decision-Making: Doctor's Role

Participants discussed the medical decision-making process and what kind of role they, their spouses, and their doctors played in the ultimate decision. (Table 5) All four participants who had undergone a primary amputation described the doctors as having the greatest role in making a decision about how to proceed with treatment. Of the five participants who had undergone secondary amputation, four described the doctor as playing a major role in initially trying to save the leg or in deciding to amputate it after the unsuccessful reconstruction attempts. Of the 11 reconstruction patients who were interviewed, nine described the doctor's confidence in being able to successfully perform the operation. One patient said that his mind was made up about doing the reconstruction, regardless of what the doctor said. The spouse of another participant said that the doctors initially wanted to remove his wife's leg but he insisted that they attempt a reconstruction.

# Medical Decision-Making: Incapacitated

One of the major themes that arose from several of the interviews was that the participants often felt that they had little to no part in the decision-making process, usually because they were unconscious or heavily medicated during that time.(Table 6) Most often their spouses or other family members made decisions about treatment on their behalf. Three of the four primary amputation participants described this experience. Likewise, two of the five secondary amputation patients noted being incapacitated during the decision-making process. Also, five of the 11 reconstruction patients noted being heavily medicated during much of the decision-making process.

#### Medical Decision-Making: Reasons to amputate

Of the 9 patients who ultimately underwent amputation, 6 justified their treatment. (Table 7) Most reasons related to not wanting to go through multiple operations with the possibility of further complications or the need to amputate later. Others expressed the need to move on with their lives, and amputation was seen as a way in which to do that.

#### Medical Decision-Making: Reasons to reconstruct

All 11 patients who underwent reconstruction gave reasons for their having done so. (Table 8) Some reasons were as simple as not wanting to lose their own limb; others described not wanting to endure the emotional and psychological toll that amputation would have incurred.

# Discussion

The goal of this study was to ascertain how patients with amputation or reconstruction perceive their own quality of life, the implications of their injuries, as well as the role they played in making decisions in order to better understand patient preferences for treatment. Acquiring this information from semi-structured interviews allowed for a fuller contextual picture to be drawn from the results than one would find with a quantitative study. One such quantitative study suggests that reconstruction is preferable to amputation based on its lower cost and higher utility. (14) Still, only qualitative analyses, such as the present study, are able to tease out the intricacies of how patients themselves feel about one treatment option over the other.

The results showed that the majority of patients expressed an overall sense of satisfaction with the outcomes of their treatment, whether it was amputation or reconstruction. The only two patients who did not explicitly do so instead talked about complications from their amputation. For example, a 62-year-old female patient (interviewed 9 years after injury) described having severe pain resulting from neuromas, bone spurs and bursitis after her primary below-knee amputation, which was later revised to an above-knee amputation as a result of osteomyelitis. In spite of these complications, the patient said, "after I found that I was going to live, I thought, I can live with this. I mean, just because I lose my leg, I'll trade that off any time to stay alive." Almost all of the patients in the study had a similar perspective about their injury; most reconstruction patients described feeling lucky just to have their leg, whereas most amputation patients described feeling lucky just to be alive.

Although almost all of the patients in the study were satisfied overall with their surgical outcomes, several patients also described having second thoughts about their treatment. The patients who had second thoughts about their reconstructions wanted to know whether their physical functioning would have been improved with an amputation and prosthesis, or wondered if amputation would have been a quicker and less painful way to recover from their traumatic injury. On the other hand, the patients who had doubts about their secondary

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amputations described wanting to attempt yet another reconstructive surgery, with the hopes of ultimately keeping their legs. Of the six patients expressing second thoughts, five patients were injured at an early age (24, 24, 26, 31 and 35, compared to the mean age of 41 at injury). Three of these patients described performing high levels of physical activity before their injury (one was a high school basketball player, another was an avid downhill skier, and the third was a former marine), so it seems likely that their dissatisfaction with the treatment and recovery is also related to the significant changes they faced in physical functioning after their injury. Of note, no primary amputation patients expressed having second thoughts, though some described dissatisfaction with various aspects of their medical treatment or recovery.

Another important theme that arose from the study was how the medical decision-making process takes place and who is most active in determining its course. Almost all of the patients denied having a significant role in the decision-making, but described their surgeons as playing a major part in this process, by providing the treatment options and discussing the surgeons' willingness to perform any given surgical procedure. Moreover, several patients described being heavily medicated or unconscious during the critical moments of early medical decision-making. Unable to communicate their own preferences to their doctors, the patients rely on their spouses and family members to take on the integral role of mediating the decision-making process. This raises the issue of surrogacy in medical decision-making and ensuring that family and spouses are prepared to give informed consent on behalf of the patient. (31–33) Though no data have been collected on surrogates for lower extremity trauma patients, research has shown that surrogates incorrectly predict end-of-life treatment patient preferences in one-third of all cases. (34) This fact highlights how crucial it is for physicians to discuss the treatment options as well as their risks of complication in a clear and comprehensive manner with the spouses and family members. Other studies have described a link between patient involvement in decision-making with greater satisfaction and less decision regret. (35,36) Patients who are less involved in their medical decisionmaking tend to be less satisfied with their treatment outcomes, therefore it follows that empowering patients and their families with the ability to make informed decisions is of the utmost importance in considering whether to pursue amputation or reconstruction.

Over the course of the interviews, nearly all of the participants gave some kind of explanation or rationalization for their own surgical treatment. The patients who underwent reconstruction almost always reasoned that their treatment was preferable because the alternative, amputation, was far worse. The reasons put forth in favor of amputation were never because the other option was considered less desirable, but instead because the path to reconstruction was not worth it or successful reconstruction was deemed impossible to achieve. It is not clear why there was this dichotomy, but it seems that patients preferring amputation base their reasons on external and practical factors, whereas those who prefer reconstruction maintain their position for more personal and theoretical reasons (i.e. "I don't want to lose my leg because it's mine.")

The limitations of this study included having a small number of patients from which to draw such generalized conclusions. Despite this limitation, current literature holds that qualitative studies should aim for "adequately in-depth observations" in lieu of a particular goal sample size.(24) Other limitations stem from the study population being self-selected among those capable of driving or arranging transportation to the study site. Additionally, selection bias may have occurred. Satisfied patients may be more willing to participate in a study. Patients dissatisfied with their treatment may be less likely to return to the site of their treatment to talk about it. Finally, because this study took place at a large academic institution, the results may not be generalizable to non-academic institutions or smaller hospitals.

Despite these limitations, this study successfully showed how patients view their own injuries and treatments. Allowing the participants to describe their feelings about the experience of having an amputation or reconstruction revealed how complicated and often ambivalent patients' perceptions of their own qualitative outcomes truly are. Although most patients can say with certainty that they are happy with the overall results of their surgical treatments, many also describe problems that they deal with on a day-to-day basis that still permeate their general state of being. A patient's perception about his or her injury also changes with time; in general, more frustration and confusion is felt acutely in the period immediately following the injury, but as time goes on, the patient is better able to adapt to the injury and its accompanying complications.

In light of these concepts, it is increasingly difficult to assign patient preferences to treatment, especially given the complexity in a patient's own understanding of his or her injury and course of treatment. The results of the study show that medical decision-making is a challenging process for the patient, spouse and family. It is important that physicians are aware of how difficult it is for patients to process the information about choosing a treatment course. As a 28-year-old male patient (interviewed 10 years after injury) with primary amputation stated:

"it's not possible to listen to everything a doctor tells you word for word after you lose your leg, because you're not really on what he's saying, you're on what you're thinkin', you're on what you're feelin', and until you get past that, only half of what he says is registering."

Surgeons should make a concerted effort to ensure that patients, spouses and family understand the ramifications of their treatment options, giving them time to process the information and allowing them to make informed decisions. Support groups or peer advisors may also improve patients' understanding of the treatment consequences, allowing them to speak to people first-hand about their own experiences with surgery and recovery from either amputation or reconstruction, and thus allow patients more control in the decision of which treatment to choose. Even though this study shows that there are still no clear guidelines for choosing one treatment option over another, it is clear that there is still room for improvement. It is recommended that researchers continue to approach the issue of assigning preference to amputation versus reconstruction with more qualitative studies, particularly those that investigate the issue from the patient's perspective.

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# Patient Demographic Information

Gender Distribution (M/F)	15/5
Mean age (range)	47 (23–68)
Injury information	
Bilateral injuries	3
Fracture type	
III-B	17
III-C	6
Treatment type	
Primary Amputation	4
Reconstruction	14
Secondary Amputation	5
Mean duration to 2° amputation <sup>*</sup> (range)	30 weeks (1-72)
Injury Cause	
Motor vehicle accident	12
Crush injury	3
Fall from height	3
Pedestrian hit by vehicle	2
Mean follow-up time (range)	82 months (28-144)

\* duration (in weeks) between injury and secondary amputation, if necessary

# Codes and Subcodes

Category	Code	Subcode(s)
Quality of Life	Advice for Others	
	Body Image	
	Coping	Acceptance
		Anger
		Denial
		Family Support
		Grateful
		Humor
		Religion
	Emotional Effects	
	Energy	
	Future Medical Treatment	
	Hindsight	
	Impact on Family	
	Other Medical Issues	
	Other Peoples Perception	
	Overall Life Effects	
	Pain	
	Physical Functioning	Change
	Self Image	
	Social Life	
	Work	
Medical Decision Making	Accuracy of Medical Information	
	Medical Decision Making	Doctor's Role
		Immediate
		Incapacitated
		Reasons to Amputate
		Reasons to Save Leg
	Medical Treatment	Initial Satisfaction
		Long-Term Satisfaction
	Treatment Assumptions	
	Treatment Second Thoughts	
	Would have Been Helpful	

#### Medical Treatment: Long-term satisfaction

"I have to say I am happy with the results of the surgery, who my surgeon was. However, the problems...Mine are not what everybody gets. Some people never have bone spurs, some people never have neuromas. But I do. And why people that have trauma injuries suffer more with pain, I don't know. Why do we get a bursa? It's just there. It's painful. There's nothing they can do about it." -Female, 62 years, primary amputation, 9 years post-injury

"I'm only half satisfied. The leg that had to be amputated over and over and over again is the side that I'm really not particularly fond of. Something I've just kinda had to adapt to and get used to."

-Male, 28 years, primary amputation, 10 years post-injury

"...I was kind of disappointed when the rod broke, you know. But then each surgeon's got their own different ways of doing it... And I feel now my leg is alright. I don't feel like I will lose it ever. 'Cause now it's finally healing. Bone's growing around it. So, I'm happy.'' -Female, 53 years, reconstruction, 5 years post-injury

"I was kinda angry about it, you know, like why did they have to take my right [latissimus dorsi]one? cause I'm right handed. Like, why couldn't they take my left? I was really mad about it." -Male, 36 years, reconstruction, 12 years post-injury

#### Treatment Second Thoughts

"Sometimes you think about it and you're like, would you have been better off if they woulda just amputated it? Was it worth it to go through everything I went through? Sometimes I think yes, sometimes I think no. I mean, would my life be different if I had a prosthetic leg instead of what I have? Would I still be able to function like I used to doin' the things that I did? It's a tough call on that one." -Male, 44 years, reconstruction, 9 years post-injury

"No, as of today, sitting here I wouldn't have changed my decision [to do the reconstruction], but we did second guess it, several times, as we went through the multiple surgeries and everything else that came as a result of that." -Male, 41 years, reconstruction, 10 years post-injury

"When I was on my eighth surgery I was like, this is going to be my last one...Well, if I knew I was going to have, you know, seven or eight more I woulda been like, I just want to quit...[but] sometimes I still think if I could had tried one more surgery would it have happened? And at least I wouldn't have to try dealing with silly sores, and making sure this [prosthetic] leg fits right, you know?...I don't know, if I had a crystal ball..."

-Male, 29 years, secondary amputation, 7 years post-injury

"I wish I had waited a little longer and not took anything of[f] this [amputated] leg, just tried something else." -Male, 55 years, secondary amputation, 6 years post-injury

#### Medical Decision Making: Doctor's Role

"I didn't decide! Hospital decided for me...They all made the decision; I didn't make no decision on nothin'. I didn't even see it. All I know is that [my wife] told me that when she came to the hospital they told her that they had to take it off." -Male, 67 years, primary amputation, 12 years post-injury

"God knows I tried to save this leg with everything I had. And I think [the doctor] when I saw him, he thought [amputation] was the best decision and I respected [his] decision. His opinion was greatly appreciated and weighed highly in my choice." -Male, 29 years, secondary amputation, 7 years post-injury

"After they did the 6th debridement, the doctor came in, says, 'The next time we do a debridement on your left foot, it'll be so weak you won't be able to stand on it.' So, he said that they wanted to take it off...I was pretty well out of it more than not. They said I didn't have much choice."

-Male, 62 years, secondary amputation, 4 years post-injury

#### Medical Decision Making: Incapacitated

"I got up here and they called [my daughter] and told her that they were gonna have to take [my leg] off. And it didn't bother me! 'Cause I was out of it for 6 weeks... when I finally realized where I was at and what had happened, so what?...'Cause I was on morphine for 5 weeks." -Male, 67 years, primary amputation, 12 years post-injury

"I was conscious until I got here [to the hospital], but when I got here... from that time I was in a morphine daze for several days. And most of those decisions were being made by my wife."

-Male, 53 years, primary amputation, 8 years post-injury

"I'm lucky my brother was here for 3 months, I mean he was here like the day after it happened...Because I wasn't terribly coherent, I mean, it's not that I wasn't conscious, I was on a lotta drugs. I had my own little morphine clicker." -Female, 62 years, secondary amputation, 3 years post-injury

"I was unconscious, so my husband made all the medical decisions." -Female, 56 years, reconstruction, 8 years post-injury

"I don't think I could [have enough information from the doctors]. Because I didn't have perspective, and I was doped up." -Male, 36 years, reconstruction, 12 years post-injury

#### Medical Decision Making: Reasons to amputate

"Because sometime, sometime down the road it probably wouldn't have worked out no how and they would cut it off anyway." -Male, 67 years, primary amputation, 12 years post-injury

"And so I was pretty quick, I surprised myself, about making that decision...[The doctor] told me what the options were, possibly 20 surgeries and that even in the end they might have amputate. And I just met a new young man who had 20 surgeries [with unsuccessful reconstruction] and he finally had the leg removed and he said, 'I am so much better off.' So I feel that I did make the right decision." -Female, 62 years, primary amputation, 9 years post-injury

"I was sick of going through surgeries...I wanted to get on with my life. I wanted to finally have something to at least finish the story. You know, instead of having many chapters of 'who knows?'. I kind of wanted to get on with my life, and have a kid, and start having a career and figure out what I want to do."

-Male, 29 years, secondary amputation, 7 years post-injury

"Yeah I wanted to keep [the leg]. Then...when they said you know we can have you going in three weeks if I take it off. I did most of it for [my wife], 'cause, I know she was at her wits end with all this. She wanted to get on with life." -Male, 55 years, secondary amputation, 6 years post-injury

#### Medical Decision Making: Reasons to Reconstruct

"I just didn't wanna be missing any limbs or anything. So, I think it was a pretty easy decision." -Male, 33 years, reconstruction, 8 years post-injury

"I've always felt that if they would a taken [my leg off] I'd probably commit suicide. That's how I feel about that." -Female, 53 years, reconstruction, 5 years post-injury

"[Amputation] would have crushed me, because now I have nothing to work for. It can't possibly be put back on now. The fact that they did reconstruct it gave me a lot of willpower to want to do what I could." -Male, 53 years, reconstruction, 10 years post-injury

"It was, it was scary. I mean, but, I didn't want to lose my leg. I mean, plain and simple. I remember telling my wife, it was the last thing before they took me away and I said, "Don't let them take it." And I'm glad they didn't. I'm glad it's-I look like Frankenstein but it's my leg, you know."

-Male, 44 years, reconstruction, 9 years post-injury

"I think my focus, regardless of any potential negative outcome of saving the leg, was, 'I don't care. At any expense I want to see my foot at the end of the day."

-Male, 41 years, reconstruction, 10 years post-injury

"[The doctors said], 'Look you have like a 75 to 85% chance of losing your leg even after we do all this. Are you still willing to do this?' And I was like, yeah! Like, if this is what it takes to save my leg, that's a gamble I'm willing to take, I'll play that game. I mean, look where I'm at... I didn't really think of it like I had much to lose at that point, other than my leg, which I didn't think I was going to keep anyway." -Male, 36 years, reconstruction, 12 years post-injury

"I think [amputation] would have been worse for me, emotionally...I have struggled with a little bit of the, uh, how [the reconstructed leg] looks...I think it would have been even worse with an amputation." -Male, 47 years, reconstruction, 3 years post-injury