

# Do No Harm

Why do some people want to cut off a perfectly healthy limb?

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**THIS WASN'T THE FIRST** time that David had tried to amputate his leg. When he was just out of college, he'd tried to do it using a tourniquet fashioned out of an old sock and strong baling twine.

David locked himself in his bedroom at his parents' house, his bound leg propped up against the wall to prevent blood from flowing into it. After two hours the pain was unbearable, and fear sapped his will.

Undoing a tourniquet that has starved a limb of blood can be fatal: injured muscles downstream of the blockage flood the body with toxins, causing the kidneys to fail. Even so, David released the tourniquet himself; it was just as well that he hadn't mastered the art of tying one.

Failure did not lessen David's desire to be rid of the leg. It began to consume him, to dominate his awareness. The leg was always there as a foreign body, an impostor, an intrusion.

He spent every waking moment imagining freedom from the leg. He'd stand on his "good" leg, trying not to put any weight on the bad one. At home, he'd hop around. While sitting, he'd often push the leg to one side. The leg just wasn't his. He began to blame it for keeping him single; but living alone in a small suburban townhouse, afraid to socialise and struggling to form relationships, David was unwilling to let anyone know of his singular fixation.

David is not his real name. He wouldn't discuss his condition without the protection of anonymity. After he agreed to talk, we met in the waiting area of a nondescript restaurant, in a nondescript mall just outside one of America's largest cities. A handsome man, David resembles a certain edgy movie star whose name, he fears, might identify him to his co-workers. He's kept his secret well hidden: I am only the second individual whom he has confided to in person about his leg.

The cheerful guitar music in the restaurant lobby clashed with David's mood. He choked up as he recounted his depression. I'd heard his voice cracking

when we'd spoken earlier on the phone, but watching this grown man so full of emotion was difficult. The restaurant's buzzer went off. Our table inside was ready, but David didn't want to go in. Even though his voice was shaking, he wanted to keep talking.

"It got to the point where I'd come into my house and just cry," he had told me earlier over the phone. "I'd be looking at other people and seeing that they already have their lives going good for them. And I'm stuck here, all miserable. I'm being held back by this strange obsession. The logic going through my head was that I need to take care of this now, because if I wait any longer, there is not much chance of a life for me."

It took some time for David to open up. Early on, when we were just getting to know each other, he was shy and polite, confessing that he wasn't very good at talking about himself. He had avoided seeking professional psychiatric help, afraid that doing so would somehow endanger his employment. And yet he knew that he was slipping into a dark place. He began associating his house with the feeling of being alone and depressed. Soon he came home only to sleep; he couldn't be in the house during the day without breaking into tears.

One night about a year ago, when he could bear it no longer, David called his best friend. There was something he had been wanting to reveal his whole life, David told him. His friend's response was empathetic — exactly what David needed. Even as David was speaking he began searching online for material. "He told me that there was something in my eyes the whole time I was growing up," David said. "It looked like I had pain in my eyes, like there was something I wasn't telling him." Once David opened up, he discovered that he was not alone. He found a community on the internet of others who were also desperate to excise some part of their body — usually a limb, sometimes two. These people were suffering from what is now called Body Integrity Identity Disorder (BIID).

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The online community has been a blessing to those who suffer from BIID, and through it many discover that their malaise has an official name. With a handful of websites and a few thousand members, the community even has its internal subdivisions: "devotees" are fascinated by or attracted to amputees, often

sexually, but don't want amputations themselves; "wannabes" strongly desire an amputation of their own. A further delineation, "need-to-be," describes someone whose desire for amputation is particularly fierce.

It was a wannabe who told David about a former BIID patient who had been connecting other sufferers to a surgeon in Asia. For a fee, this doctor would perform off-the-book amputations. David contacted this gatekeeper on Facebook, but more than a month passed without a reply. As his hopes of surgery began to fade, David's depression deepened. The leg intruded more insistently into his thoughts. He decided to try again to get rid of it himself.

This time he settled for dry ice, one of the preferred methods of self-amputation among the BIID community. The idea is to freeze the offending limb and damage it to the point that doctors have no choice but to amputate. David drove over to his local Walmart and bought two large trashcans. The plan was brutal, but simple. First, he would submerge the leg in a can full of cold water to numb it. Then he would pack it in a can full of dry ice until it was injured beyond repair.

He bought rolls of bandages, but he couldn't find the dry ice or the prescription painkillers he needed if he was going to keep the leg in dry ice for eight hours. David went home despondent, with just two trashcans and bandages, preparing himself mentally to go out the next day to find the other ingredients. The painkillers were essential; he knew that without them he would never succeed. Then, before going to bed that night, he checked his computer.

There it was: a message. The gatekeeper wanted to talk.

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WE ARE ONLY JUST beginning to understand BIID. It hasn't helped that the medical establishment has generally dismissed the condition as a perversion. Yet there is evidence that it has existed for hundreds of years. In a recent paper, Peter Brugger, the head of neuropsychology at University Hospital Zurich, Switzerland, cites the case of an Englishman who went to France in the late 18th century and asked a surgeon to amputate his leg. When the surgeon refused, the Englishman held him up at gunpoint, forcing him to perform the

operation. After returning home, he sent the surgeon 250 guineas and a letter of thanks, in which he wrote that his leg had been “an invincible obstacle” to his happiness.

The first modern account of the condition dates from 1977, when *The Journal of Sex Research* published a paper on “apotemnophilia” — the desire to be an amputee. The paper categorised the desire for amputation as a paraphilia, a catchall term used for deviant sexual desires. Although it’s true that most people who desire such amputations are sexually attracted to amputees, the term paraphilia has long been a convenient label for misunderstandings: after all, at one time homosexuality was also labelled as paraphilia.

One of the co-authors of the 1977 paper was Gregg Furth, who eventually became a practising psychologist in New York. Furth himself suffered from the condition and, over time, became a major figure in the BIID underground. He wanted to help people deal with their problem, but medical treatment was always controversial — often for good reason. In 1998, Furth introduced a friend to an unlicensed surgeon who agreed to amputate the friend's leg in a Tijuana clinic. The patient died of gangrene and the surgeon was sent to prison. A Scottish surgeon named Robert Smith, who practised at the Falkirk and District Royal Infirmary, briefly held out legal hope for BIID sufferers by openly performing voluntary amputations, but a media frenzy in 2000 led British authorities to forbid such procedures. The Smith affair fuelled a series of articles about the condition — some suggesting that merely identifying and defining such a condition could cause it to spread, like a virus.

Undeterred, Furth found a surgeon in Asia who was willing to perform amputations for about \$6,000. But instead of getting the surgery himself, he began acting as a go-between, putting sufferers in touch with the surgeon.

He also contacted Michael First, a clinical psychiatrist at Columbia University in New York. Intrigued, First embarked on a survey of 52 patients. What he found was illuminating. The patients all seemed to be obsessed by the thought of a body that was different in some way from the one they possessed. There seemed to be a mismatch between their internal sense of their own bodies and their physical bodies. First, who would later lobby to have BIID more widely recognised, became convinced that he was looking at a disorder of identity, of the sense of self.

“The name that was originally proposed, apotemnophilia, was clearly a problem,” he told me. “We wanted a word that was parallel to gender identity disorder. GID has built into the name a concept that there is a function called

gender identity, which is your sense of being male or female, which has gone wrong. So, what would be a parallel notion? Body integrity identity disorder hypothesises that a normal function, which is your comfort in how your body fits together, has gone wrong.”

In June 2003, First presented his findings at a meeting in New York. Robert Smith, Furth, and many BIID sufferers attended the meeting. One of them was David’s gatekeeper, whom I’ll call Patrick.

Without much warning, Furth walked up to Patrick and his wife with a startling proposition. “We are standing there eating our sandwich, and he says to me, ‘Would you be interested in a surgical option?’” Patrick had felt the pressure of BIID for most of his life. He didn’t have any reservations. “Hell yes. Yes, yes, yes, no question about it.” To this day, Patrick doesn’t know why Furth singled him out. Patrick is not a religious man, but he felt a higher power was giving him his due.

The next evening, Patrick and his wife went over to Furth’s apartment for an evaluation. Furth grilled Patrick to make sure he was for real. Was Patrick’s desire due to BIID or a sexual fetish? How did it impact his life? For two hours the questions flowed. Patrick answered them, scared that he’d “flunk the evaluation.” He didn’t, and Furth agreed to make the recommendation. That was where it all began. Just a few months later, he had the surgery he craved. And less than a year after that, Patrick had become the gatekeeper himself.

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SITTING AT HOME in a small, somewhat rural American town not too far from the ocean, Patrick recalled the day his wife found out about his obsession. It was during the mid-‘90s. As with almost all BIID sufferers, Patrick was fascinated with amputees, so he began downloading pictures of them off the Internet and printing them out. One day his wife was sitting in front of their computer, while Patrick sat in a wingback chair. She noticed a pile of printouts. They were images of men, but “completely clothed, no nudes or anything like that.” It was an awkward moment. “She was thinking that maybe I was gay,” Patrick recalls. “I must have been crimson.” Patrick asked her to take a closer look. She did, and soon realised that the men were all amputees.

Patrick told his wife that he had felt odd about his leg since he was four years old, a feeling that eventually grew into an all-consuming desire to be rid of it. It was a shock: they had been married for decades, and the revelation that he had been hiding something was hard to take. But his confession also brought relief. For more than four decades he had suffered alone. Growing up in small-town America, with conservative parents, in an era when “people didn’t believe in going and seeing mental health professionals,” Patrick was mystified by what he felt.

By the early ‘60s, as a teenager, his obsession with amputees and amputations took him to a library in the nearby state capital, where he hoped to find books on the subject. To his surprise, most of the pictures of amputees had been cut out. At that moment he realised that he wasn’t the only person who was consumed by this strange obsession.

“There had to be somebody else out there,” Patrick told me, “but how could I find out who?”

As time went on, Patrick struggled with his thoughts about his leg: “How can I get rid of it? What can I do? How can I do it? I don’t want to die in the process.” Seeing a picture of an amputee, or worse, seeing an amputee on the streets, would ratchet up his emotions. “It would just drive me nuts,” he told me. “That could last for several days. All I could think about was how I could get rid of my leg.” His anxiety led him to make deals with God and pacts with the devil: “Take my leg, save somebody else’s,” he implored. Yet through it all, for the first four and a half decades of his life, he told no one. The loneliness was almost too much to bear.

Less than a year before his wife’s discovery, he had stumbled upon an anonymous classified ad in a local city newsletter. The person who placed it admitted a desire to amputate a limb; he was a wannabe. Patrick wrote to the post office box that was listed and began a correspondence with the man. Eventually they met, and the wannabe told him about others who were seeking amputations. It was a deliverance. “Oh my God, I’m not alone with this anymore,” Patrick recalled thinking. “I’m not nuts.”

Yet finding others who shared his condition did not lessen his need. If anything, Patrick’s desperation grew. He considered a DIY amputation. He had heard of people who had lain down on train tracks and let a train run over their limbs, or who had blown their legs off with a shotgun. “The trouble with a train is that if the train is moving at a good clip, you can kill yourself very easily,

because it can pick you up and spit you out,” he said. “I really didn’t want to die in the process and not find out what it was like to live with one leg.”

Another wannabe who had done a DIY amputation suggested Patrick practise first, so Patrick decided to get rid of part of his finger as a prelude to amputating his leg. With a pen and a rubber band, he made a tourniquet for one of his fingers and stuck it into a thermal cup full of ice and alcohol. After part of the finger became numb and Patrick was unable to bend it, he took a hammer and chisel and chopped off the bit above the first knuckle. He even smashed the detached digit. “So they couldn’t reattach it even if they wanted to,” Patrick told me.

Crushing the amputated digit also aided in the cover-up: hospital staff were told that a heavy object had fallen on the finger. When a doctor injected his injured finger with a painkiller, Patrick pretended that the needle hurt. His finger was still numb.

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It was eight years ago that Patrick finally made it to Asia to see the surgeon Gregg Furth introduced him to. He was admitted to hospital on a Friday evening, and had to wait until Saturday evening to be wheeled into surgery. “The single longest day of my life,” he told me. He awoke from his anaesthesia the next day. “I looked down and couldn’t believe it. It was finally gone,” he said. “I was ecstatic.” His only regret in the eight years since his amputation is that he didn’t get it when he was younger. “I wouldn’t want my leg back for all the money in the world, that’s how happy I am.”

This comfort with his condition is reflected at home. Just before the surgery, his children gave him a Ken doll, which he keeps in a plastic box stuffed with scrapbooks of photographs of amputees that he collected in his younger days. The doll wears a pair of red shorts; one of its legs ends above the knee, in a stump wrapped with a white gauze bandage.

In Patrick’s house, I saw a decorative skeleton hanging off a chandelier and didn’t think much of it. “Look more closely,” he urged. Only then did I notice that it, like Patrick, was missing part of a leg and part of one finger. Then there was a statue of Michelangelo’s David on the mantelpiece. It too was missing

part of a leg. The family had acknowledged Patrick's suffering and was celebrating his freedom from BIID. Patrick now seemed genuinely comfortable with his body.

This feeling of relief and release is a sentiment expressed by just about every BIID amputee who has been studied by scientists. That evidence ought to allay at least one fear that ethicists have expressed about BIID—that once you amputate a healthy limb, the patients will eventually come back for more. In nearly all accounts, they don't, unless from the very beginning their BIID involves multiple limbs.

Furth, for his part, was diagnosed with cancer and died in 2005 without ever getting his own amputation. When he vetted Patrick for surgery, Patrick told him that after his amputation he would try to help the others he knew were out there.

Nearing death, Furth called Patrick. Would he take over the gatekeeping duties for the surgeon in Asia? Patrick agreed to do so, and for seven years he has acted as the go-between for BIID sufferers. One way or another, they eventually find him. And just before he could use dry ice on his leg, David found him too.

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**A YEAR OR SO** before Patrick's operation, a psychologist asked him if he would take a pill to make his BIID go away, should such a treatment exist. It took a moment for him to reflect and answer: maybe when he had been a lot younger, but not anymore. "This has become the core of who and what I am," he said.

*This is who I am.* Everyone with BIID that I have interviewed or heard about uses some variation on those words to describe their condition. When they envision themselves whole and complete, that image does not include parts of their limbs. "It seems like my body stops mid-thigh of my right leg," Furth told the makers of a 2000 BBC documentary, *Complete Obsession*. "The rest is not me."

In the same film, the Scottish surgeon Robert Smith tells an interviewer: “I have become convinced over the years that there is a small group of patients who genuinely feel that their body is incomplete with their normal complement of four limbs.”

It’s difficult for most of us to relate to a notion like this. Your sense of self, like mine, is probably tied to a body that has its entire complement of limbs. I can’t bear the thought of someone taking a scalpel to my thigh. It’s my thigh. I take that sense of ownership for granted. This isn’t the case for BIID sufferers, and it wasn’t the case for David. When I asked him to describe how his leg felt, he said, “It feels like my soul doesn’t extend into it.”

Neuroscience has shown us over the past decade or so that this sense of ownership over our body parts is strangely malleable, even among normal healthy people.

In 1998, cognitive scientists at Carnegie Mellon University in Pittsburgh performed a deceptively simple experiment. They sat subjects down at a table with their left hands resting on a table. A screen prevented the subjects from seeing their hands: instead, a rubber hand was placed in front of the screen.

The researchers then used two small paint brushes to stroke both the real hand and the rubber hand at the same time. When questioned later, the subjects said that they eventually felt the brush not on their real hand, but on the rubber hand. More significantly, many said they felt as if the rubber hand was their own.

The rubber-hand illusion illustrates how the way we experience our body parts is a dynamic process, one that involves constant integration of various senses.

Visual and tactile information, along with sensations from joints, tendons and muscles, gives us a sense of ownership of our bodies.

This feeling is a crucial component of our sense of self: it’s about my body, my thoughts, my actions. It’s only when the process that creates this sense of ownership goes awry, for example when the brain receives conflicting sense information — as in the rubber-hand illusion — that we notice something is amiss.

And if we can feel as if we own something as inanimate as a rubber hand, can we own something that doesn’t exist? Seemingly, yes. Patients who have lost a limb can sometimes sense its presence, often immediately after surgery and at

times even years after the amputation. In 1871, an American physician named Silas Weir Mitchell coined the phrase “phantom limb” for such a sensation. Some patients can even feel pain in their phantom limbs. By the early 1990s, it was established that phantom limbs were an artefact of body representation in the brain gone wrong.

The idea that our brain creates maps or representations of the body emerged in the 1930s, when Wilder Penfield probed the brains of conscious patients who were undergoing neurosurgery for severe epilepsy. He found that each part of the body’s outer surface has its counterpart on the surface of the cortex: the more sensitive the body part—say, hands and fingers, or the face—the larger the brain area devoted to it. As it turns out, the brain maps far more than just the body’s outer surface. According to neuroscientists, the brain creates maps for everything we perceive, from our bodies (both the external surface and the interior tissues) to attributes of the external world. These maps compose the objects of consciousness.

The presence of such maps can explain phantom limbs. Though patients have lost a limb, the cortical maps sometimes remain—intact, fragmented or modified—and they can lead to the perception of a limb, with its potential to feel pain. Even people born without limbs can experience phantom arms or legs. In 2000, Brugger wrote about a 44-year-old highly-educated woman, born without forearms and legs, who nonetheless had experienced them as phantom limbs for as long as she could remember. Using functional magnetic resonance imaging and transcranial magnetic stimulation, Brugger’s team verified her subjective experience of phantom limbs and showed that body parts that were absent from birth could still be represented in sensory and motor cortices.

“These phantoms of congenitally absent limbs are animation without incarnation,” Brugger told me. “Nothing had ever turned into flesh and bones.” The brain had the maps for the missing body parts, even though the actual limbs had failed to develop.

When confronted with BIID, Brugger saw parallels to what the 44-year-old woman experienced. “There must be the converse, which is an incarnation without animation,” he said. “And this is BIID.” The body had developed fully, but somehow its representation in the brain was incomplete. The maps for a part of a limb or limbs were compromised.

Recent studies have borne out this idea. Neuroscientists are particularly interested in the right superior parietal lobule (SPL), a brain region thought to be vital to the construction of body maps. Brugger has found that this area is

thinner in those with BIID, and others have shown that it may be functioning differently in those with the condition. In 2008, Paul McGeoch and V.S. Ramachandran of the University of California, San Diego, mapped the activity in the brains of four BIID patients. The researchers tapped the feet of the control subjects and watched the SPL light up. But the BIID patients were different: the right SPL showed reduced activity when the disowned foot was tapped, only lighting up normally when the tap was on the other foot.

“What we argue is that in these people something has gone wrong in the development, either congenitally or in the early development, of this part of the brain,” McGeoch told me. “This limb is not adequately represented. They find themselves in a state of conflict, a state of mismatch that they can see and feel.”

There are almost certainly other brain regions involved. Last year, scientists reviewed a number of “body-ownership” experiments, including the rubber hand illusion, and identified a network of brain regions that integrates sensory data related to maps of our body, its immediate surroundings and the movement of our body parts. These regions, they suggest, are responsible for what they call the “body-matrix”—a sense of our physical body and the immediate space around it. The network maintains the integrity of the body-matrix, and reacts to anything that threatens it.

Intriguingly, the physical differences in the brains of BIID patients that Brugger identified include changes in nearly all the parts of this network. Could BIID result from alterations to this body-matrix network? Brugger’s team thinks so.

It’s crucial to emphasize that these findings are correlations—they don’t address causality. Could a lifetime of thinking about amputating a leg lead to these brain changes? Or were these brain differences driving the desire? These studies cannot yet answer such questions.

Then there is the issue of how body states and body-matrix networks translate into a sense of self. And, for BIID patients, how a skewed body map leads to the desire for amputation.

“‘Owning’ your body, its sensations, and its various parts is fundamental to the feeling of being someone,” the philosopher Thomas Metzinger has written. He argues that our brain creates a phenomenal self-model (PSM), and the content of the PSM is our ego, our identity as subjectively experienced. If something is in the PSM, it belongs to me. If it’s not, then it’s not me. The rubber hand experiment works because it modifies the PSM: the brain replaces our real hand with the rubber hand, which is now embedded in the self-model. And since

anything in the PSM has the subjective property of *mineness*, we feel as if the rubber hand belongs to us. In BIID, it's likely that a limb or some other body part is misrepresented or underrepresented in the PSM. Lacking the property of mineness, it is disowned.

Therein lies a clue to why someone with BIID might want to amputate a limb that doesn't feel like it belongs. My self—as defined by the content of the PSM—is not just my subjective identity; it also the basis for the boundary between what's mine and everything else.

"It's a tool and a weapon," said Metzinger, when we spoke on the telephone. "It's something that evolved to constantly preserve and sustain and defend the integrity of the overall organism, and that includes drawing a line between me and not-me, on very many different functional levels. If there is a misrepresentation in the brain that tells you this is not your limb, it follows that phenomenologically this will be a permanently alarming situation."

The debate rages on over whether amputation is ethical. In the meantime, BIID sufferers often take treatment into their own hands.

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VISCERAL NEGATIVE REACTIONS are common when people first hear about voluntary amputations. Twelve years ago, when media attention to the condition was at its height, bioethicist Arthur Caplan, then of the University of Pennsylvania, called it "absolute, utter lunacy to go along with a request to maim somebody."

More than a decade later, there is still argument in the pages of academic journals about the ethics of voluntary amputations. Is it analogous to body-modifying cosmetic surgeries, such as breast reduction? Some bioethicists say no, since amputation entails a permanent disability. Others point out that cosmetic surgery can also be disabling, as when breast reduction results in the inability to breastfeed. Or should BIID be compared to anorexia nervosa as the best, if somewhat imperfect, analogy, because both involve body-image discrepancies? According to this line of argument, amputations should be denied just as anorexics are sometimes fed against their will. The retort to this

is that anorexics are clearly delusional about their bodies, as objective measures can show their body weight to be dangerously low. There is no such objective measure of a BIID patient's internal feeling of bodily mismatch.

The debate continues, partly because BIID is not a medically recognised disorder. There's also a lack of data about how voluntary amputations affect the lives of patients. Yet David's surgeon, an orthopaedic specialist, has made up his mind.

Dr Lee — which is not his real name — is in his mid-40s, friendly, with an easy laugh. He seems at peace with his secret practice. When a BIID patient first approached him four years ago, he had had his doubts, so he researched the condition as thoroughly as he could and communicated with the patient for several months before deciding to do the amputation. He knew he would be risking his medical license.

A religious man, he and his wife even prayed on it, eventually putting some of the onus of the decision on higher powers. "God, if you think this is not right, then put some hindrance," he remembers thinking. "I don't know what it is, but put some hindrance." So far things have gone smoothly, and he's taking that as divine sanction.

Dr Lee is convinced that what he does is ethical. He has no doubt that BIID patients are suffering deeply. On the question of whether to amputate to relieve their pain, he invokes the WHO's definition of health: a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. As far as he can tell, people with BIID are not healthy, there is no non-surgical cure in sight, and no evidence that psychotherapy helps. Michael First, in his 2005 survey of 52 BIID patients, reported that 65 percent of them had seen psychotherapists, but it had no effect on their desire for amputation (though it's also true that half of them did not tell their psychotherapists about such desires).

Of course, there's also the question of whether BIID sufferers are psychotic or delusional. Again, the scientists who have studied these individuals say that they are neither. Dr Lee insisted that his patients have not been psychotic.

On the contrary, he said, many of them were high-functioning individuals, including a pilot, an architect and a doctor. And for Dr Lee the proof is in the near-instant change he has observed in his patients after the surgery, which contrasts strongly with those who have to undergo involuntary amputations because of, say, a car accident. Involuntary amputations are traumatic to even

the strongest of people, and they can become severely depressed as a result. “Then you have these BIID people who crutch unbelievably after the first day after surgery.”

Paul McGeoch, who has studied his fair share of BIID patients, has the same opinion. “They are universally happy. I have never heard of one who is not pleased to have a limb amputated,” he said. But as convinced as Dr Lee seemed, the surgeon repeatedly stressed to me: “I’ll stop the moment I get my first patient who feels remorseful about the surgery. So far, none have.”

If BIID were ever to be legitimised, and voluntary amputations to become legal, Dr Lee knows that his clandestine program would end.

“I’d be so glad if ever that happened. I won’t have to deal with the tension anymore,” he said. “Right now, I’m torn between the tension of doing the surgery, and the tension of helping them.” Then, in a momentary lapse of caution, he admitted that he would miss the surgeries: “Maybe that’s the weirdo in me.”

I asked if he would miss the income, which amounts to about \$20,000 per operation. The answer was an emphatic no. He said he made the same amount doing legal surgeries for foreign health tourists and that he had a flourishing local practice. He pointed out that his fee covered everything: hospital costs, payments to his fellow surgeons, even some meals and sightseeing for his patients. “You are not paying for the surgery. You are paying for all the risks involved,” he said. “You have to keep everybody happy. We are not talking peanuts here. If this gets out, we all lose our licenses.” He said it was a risk he’s willing to take, as long as his patients are happy.

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**THE MORNING THAT DAVID** was scheduled for surgery, I went to meet him and Patrick in their hotel suite. We had flown thousands of miles to be there, in a crowded Asian city. Outside the hotel, the weather was hot and muggy, the traffic heavy. Luxury cars and jalopies jostled for street space alongside buses and two-wheelers. Diesel fumes stung my nostrils. A fetid

stream wound its way between high-end hotels and office buildings. Inside the hotel, the wood-panelled suite was air-conditioned, hushed.

I had spent the night thinking about David's surgery, and all I had felt was anxiety. I imagined the fear that David must be experiencing: fear of surgery, fear of confrontations with family and friends, fear of disability. But that morning David himself showed no such emotions. He said he had moved beyond those worries. Instead, he fretted about the paperwork. Whom should he put down as emergency contacts? Should he divulge their addresses and phone numbers? Patrick suggested putting down the wrong numbers; maybe change a digit or two. "You'll have to get used to lying," he said.

Questions kept occurring to me. I asked David if he had been evaluated by a psychiatrist. Usually, I knew, Patrick recommended someone for surgery only after a psychiatrist confirmed that he or she was suffering from BIID. David said no. Patrick had used his own judgement in recommending him to the surgeon, saying that he sees himself in David—the same agony, the same mental torture. Plus, David couldn't afford a psychiatric evaluation. He had to scrape and scrounge and go deeply into debt to come up with the \$25,000 needed to cover the surgeon's fees, the airfare and ten days of hotel accommodation for two.

Dr Lee had agreed to the surgery based on Patrick's recommendation. The two had been working together ever since they met via the BIID network about four years ago. David was thankful for Dr Lee's help. "As you know," he told me in the hotel room. "I was in a DIY mode, where I was going to hurt myself." Suddenly David started sobbing. Patrick consoled him; David apologised. "Every time I talk about hurting myself, it makes me cry," he said. David again expressed certainty that if the surgery didn't go through, he would attempt cutting his leg off himself. "I can't go on any longer."

The surgeon picked us up in the early afternoon. Given that David's procedure would require subterfuge to get past hospital staff and nurses, Dr Lee appeared surprisingly calm. "Have to be," he replied when I asked him later about his demeanor. "Cannot show the patient that I'm nervous." He drove us to his house, ushered us into the living room and asked David to sit down.

Dr Lee laid out the plan: he would admit David to hospital, saying he needed surgery for a vascular disorder. The unwitting staff would prepare the patient for an ordinary operation — and then, under the surgical lights, Dr Lee would say that the leg needed removing and conduct the amputation. Inside, the anaesthesiologist and other surgeons would be in on the plan; the nurses would

not know. Dr Lee laid an old garment on the floor, and set David's foot on it. Working swiftly, he bandaged the foot, ankle, and calf as a precaution. It wouldn't do to have curious hospital staff see that the foot was healthy. He wrote the admitting order on his prescription pad and instructed David in the sequence of symptoms he should tell the hospital admissions staff he had endured over the past few days: pain, followed by some cramping, and eventually numbness. The diagnosis that these implied would give Dr Lee the option of amputating during surgery, a judgment that could not be questioned by anyone who wasn't in the operating room.

We drove to a small hospital on the outskirts of the city. The high-rise hotels gave way to low-slung buildings and occasional homes with makeshift tin roofs alongside unpaved muddy alleys. The hospital itself was on a major road lined with an odd assortment of shops: a butcher, a pawn shop, an electronics repair outfit and a hairdresser who promised safe and effective hair straightening. Dr Lee was not on the staff at this hospital; like many doctors in private practice he had surgical privileges at a number of different hospitals. He dropped us off outside. David, now on crutches, would have to get past the hospital staff. Would they buy his story? We walked into the emergency room. It was a simple affair. Ten iron-frame beds and mattresses covered with spotless sheets were separated by thick curtains. This was not a high-tech, first-world ER, but it was clean and functional.

A nurse asked David to sit down and asked what was wrong with him. He gave her Dr Lee's admitting order. The attending physician, a bespectacled man in a blue striped shirt with a stethoscope around his neck, took the order and frowned as he read it. He leaned over the counter to take a look at David's leg. He noted the bandaging and asked if David had suffered an accident. No, said David, and he quietly repeated the sequence of symptoms. The man got up and walked away.

David was subdued. Patrick, wearing his prosthetic leg, appeared to be feeling fine; he had been through this scenario many times. David, beneath his quiet demeanour, was nervous, as was I, even though I was just an observer. My mind raced through all that could go wrong. What if the attending doctor asked more questions? What were the three of us, two of whom were on crutches, doing in this part of the world? What if they called the police? Then, once David was finished with the paperwork, a nurse brought him a wheelchair. She inserted a catheter into David's left hand and hooked it up to an IV bag hanging off of a pole on the wheelchair. She left. I looked at Patrick. "I can't believe it's really happening," he whispered in relief. A male nurse came in, and we got up

and followed him as he wheeled David up to his hospital room. They had bought the story.

In the hospital room, we sent the surgeon a text message to say that David had checked in. Dr Lee told me later that his own nervousness usually sets in the moment he receives that message. Now all was in motion.

As we waited in the hospital room, Patrick started giving David advice about life as a leg amputee. Don't ever close your eyes when you're standing without support, he said. You'll lose balance and topple over. Always carry powerful painkillers: stumbling and landing on your stump can be excruciating.

A nurse came in and informed David that the doctor would operate in a few hours, then left us alone again. We counted the saline drops dripping into David's veins: about 12 drops per minute. I asked David about his cover story for when he got back home. He said he would tell people at home the story he had told the hospital. Dr Lee would provide him a full medical report to take back. Patrick recalled his own cover story: he'd picked up a rapidly spreading infection called St. Anthony's Fire on vacation; the rampant infection turned the leg gangrenous, leading to the amputation. It had worked well for him. Then Patrick told David to do something that would soon be impossible, once the operation was complete: cross his legs. It was as if we were mourning an impending loss with a collective minute of silence.

Soon, two male nurses wheeled in a gurney. David lay down on it and he was taken away to surgery. Patrick gave him a thumbs-up. I didn't know what to say, so I just muttered "good luck" under my breath.

The hospital was quiet, and empty benches lined the dimly lit corridors. Only the operating room, off limits to outsiders like me, showed signs of activity. Dr Lee would later describe events to me. Inside, David lay on the table, anaesthetised and oblivious to pain. An overhead surgical lamp illuminated his upper thigh. Dr Lee picked up a scalpel and made a long, deep incision precisely where David had requested, in a leg that was athletic, muscular, healthy. The surgeon cut through muscle, working hard. He cauterised the smaller blood vessels as he went while keeping clear of the large veins, arteries, and nerves. He pulled at the nerves, teasing them free of the surrounding muscles, cut, then let go. The nerves retracted into the soft tissue of the upper thigh like rubber bands. He clamped the large blood vessels, snipping them, and tied up the proximal and distal ends, the proximal ends three times for peace of mind.

The surgery was taking longer than anticipated, because the leg was so robust, engorged with blood. Finally, he slipped a wire saw under the femur. An assistant pressed down on the leg. Dr Lee began sawing and soon pulled the saw through the strongest bone in the body. He then attended to the blood vessels, nerves, muscle and skin on the underside of the bone, until the leg was finally detached. It was time to suture. First, he sewed up the muscles, then the fascia, the strong fibrous tissue surrounding the muscles. Suturing the fascia correctly was critical, because mistakes could lead to muscle herniation. Finally, the surgeon stitched up the skin and the subcutaneous tissue. Where once there was a leg only a stump remained.

While the operation was taking place I walked the empty corridors outside, trying to peer discreetly over the frosted glass panes of the doors leading into the theatre. I have thought about the surgery many times since. Each time I have felt fear, and sadness. Here was a perfectly healthy man with a perfectly healthy leg. Yet he went under the knife voluntarily, in a foreign country. He trusted a surgical team that worked under a cloak of deception. How much must a man suffer to come to this: lying by himself on an operating table, attended only by strangers, in a small, obscure hospital thousands of miles from his home in America?

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Patrick was asleep when I heard the knock on the door. It was more than three hours since David had been wheeled away. It was a male nurse in surgical robes and rubber gloves. He turned to Patrick and said, "The leg has to be buried as soon as possible." He needed money to take care of the burial. Patrick handed it to him. "Do you want to see the leg?" the nurse asked. "It's already in the box." Patrick didn't. The nurse left. "Well, he's an amp now. I'm glad," said Patrick. "It's what he wanted. It's what he needed."

Dr Lee appeared soon after. The surgery went well, he said, though it had taken longer than usual. David was fine and lay asleep in recovery. Dr Lee offered to give me a ride back to my hotel, and I accepted. During the ride he talked about David's long surgery. "His muscles were well-built," said Dr Lee. "They contract and they also bleed more. You have to be careful." Still, there was the satisfaction of a job well done. "What's fascinating is that you can really see

the transformation,” he said. He meant the change in the demeanour of his BIID patients after surgery. “You’ll notice it tomorrow.”

The next day, I couldn’t wait to get back to the hospital. I purchased a bar of bitter-sweet chocolate for David and hailed a taxi. When we arrived, I walked in through the front door, past the ER, and halted for a moment at the frosted glass doors of the operating room. Then I walked to David’s room and knocked on the door. Most patients would be flat out recovering after such a major surgery, but David was sitting up on his bed, his stump heavily bandaged and covered in white gauze. He was still on an IV. Tramadol, a narcotic-like analgesic, was dripping into his veins. He was tethered to a urine bag. He looked tired, but then it was only 12 hours since the operation. I shook his hand and gave him the chocolate. David opened the wrapper, broke off a piece and began to eat. He sat on the hospital bed as if nothing dramatic had happened last night. Our conversation eventually wore him out. He fell asleep.

When I returned the next day, the IV and the urine bag were gone. A pair of crutches lay next to his bed; he had already crutched to the bathroom and back, just as the surgeon had said he would. He smiled and laughed easily as we spoke. The tension that had lined his face was gone. I sensed relief, happiness. David's leg had plagued him for much of his life. He was free of it, and now he seemed whole.

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*Minor details relating to the Asian hospital have been changed to obscure the identity of the medical staff involved.*