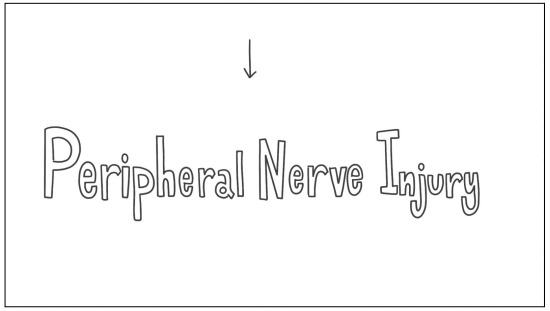
ALEX_MRP

Boards: 73 | Shots: 10 | Duration: 2:25 | Aspect Ratio: 16 : 9
DRAFT: MARCH 4, 2022

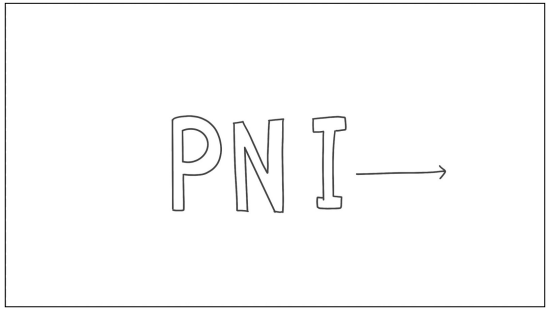
1A 0:00



A peripheral nerve injury

Words drop from top

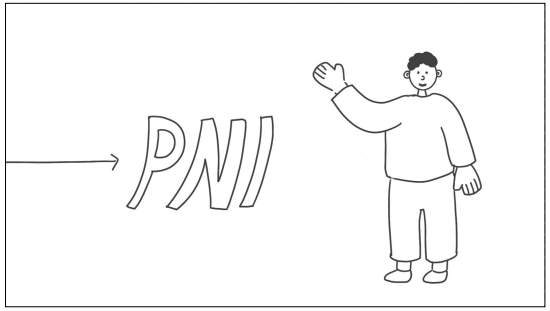
1B 0:02



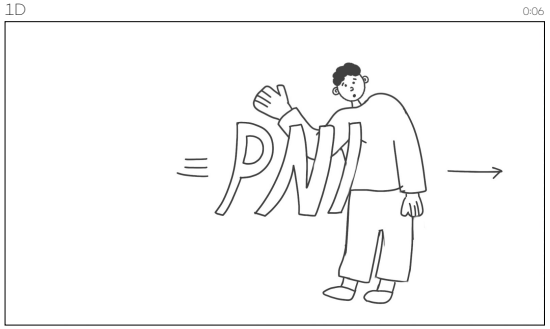
,or PNI,

"PNI" starts accelerating to right

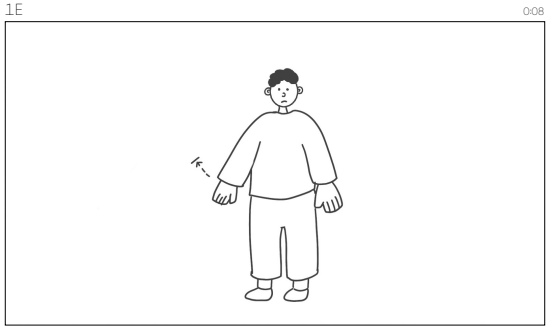
1C 0:04



1D 0:06



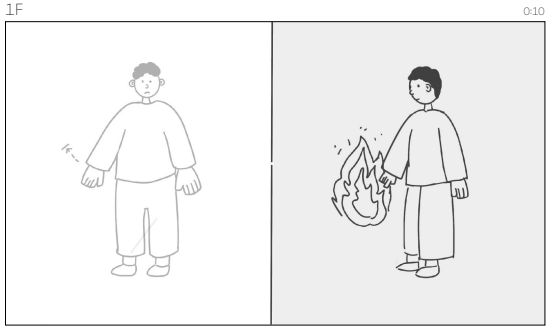
1E 0:08



can cause a loss of muscle movement

Person #1 tries to flex his arm but cannot

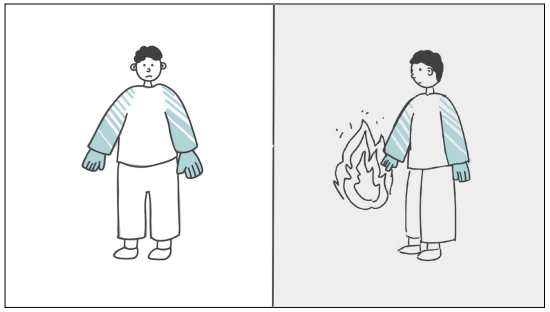
1F 0:10



and sensation

Person #2 touches the fire but shows no pain. Right panel enters from L side of frame.

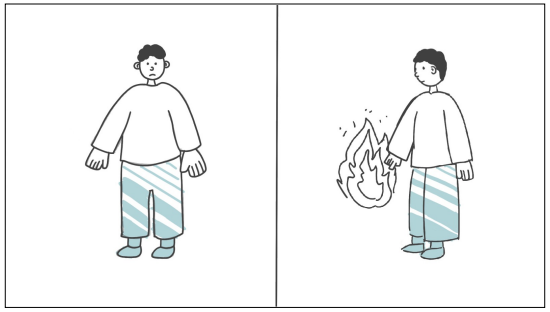
1G 0:12



in our upper

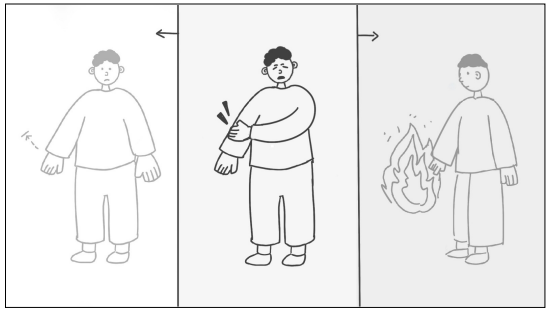
Upper limbs briefly highlighted

1H 0:14



or lower limbs.

1I 0:16



Sometimes, there can also be nerve pain.

Person #3 makes a painful expression while touching his arm. Middle panel enters from middle of L and R panel and pushes outwards.

ALEX_MRP

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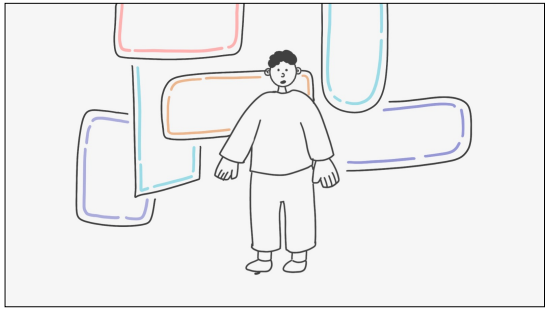
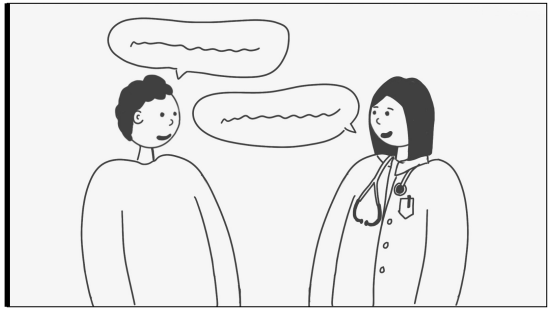
1J 0:18



To manage this injury, there are various options, including surgery.

Blank signs appear one by one

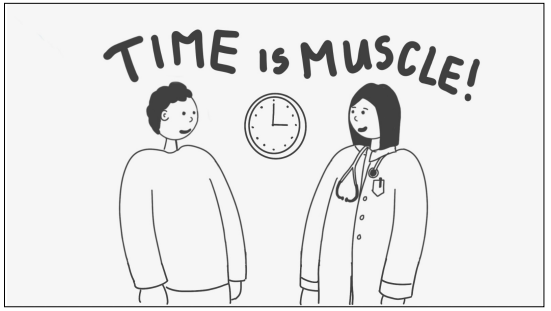
2A 0:20



An early discussion with a nerve surgeon is very important because

Patients and surgeon discuss

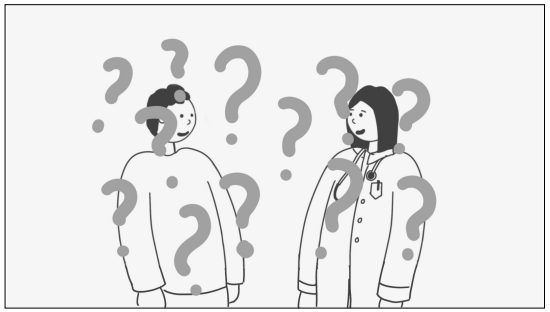
2B 0:22



the recovery of muscle movement is time-sensitive. (Time is muscle!)

Clock spins and "Time is muscle" appears.

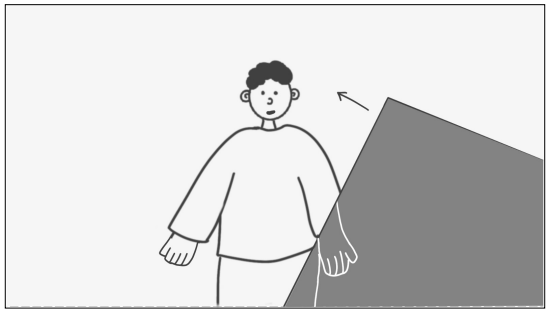
2C 0:24



Why is this?

Questions mark pop on screen

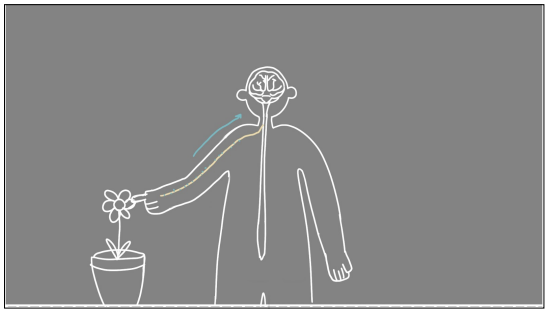
2D 0:26



Well, let's take a look at how our peripheral nervous system works.

Grey card swipes from right to left

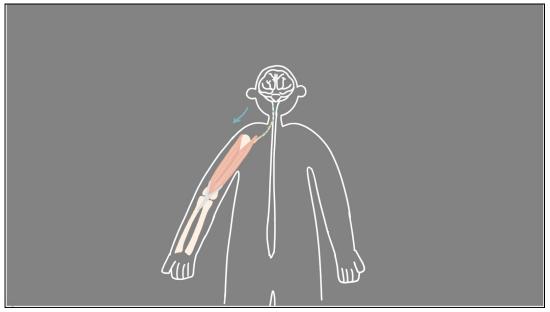
2E 0:28



Normally, sensory peripheral nerves relay signals from our skin and other tissues to our brain.

Signals relayed from the periphery to brain as silhouette touches the flowers.

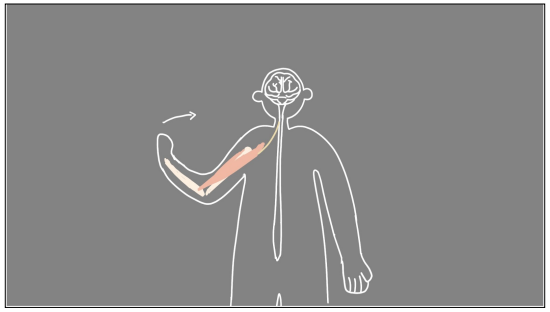
2F 0:30



For muscle movement, signals from our brain are relayed via nerves

Brain is briefly highlighted and signals are relayed to the muscle

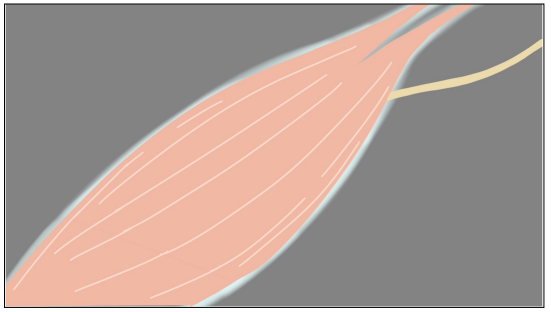
2G 0:32



that directly contact their muscle.

Arm flexes

2H 0:34



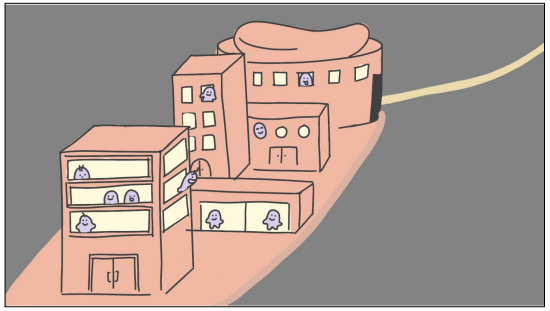
Imagine that each muscle

Muscle is briefly highlighted

ALEX_MRP

Boards: 73 | Shots: 10 | Duration: 2:25 | Aspect Ratio: 16 : 9
DRAFT: MARCH 4, 2022

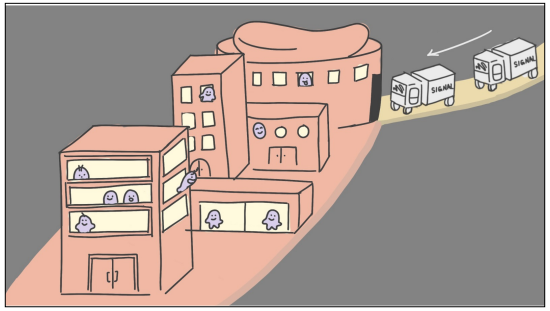
2I 0:36



is a city

Muscle morphs into city

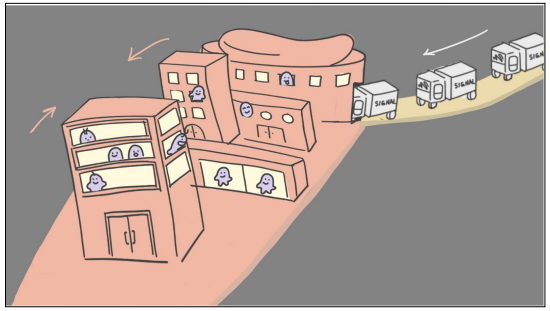
2J 0:38



that depends on individual “nerve bridges"

Nerve morphs into bridge with trucks carrying signals

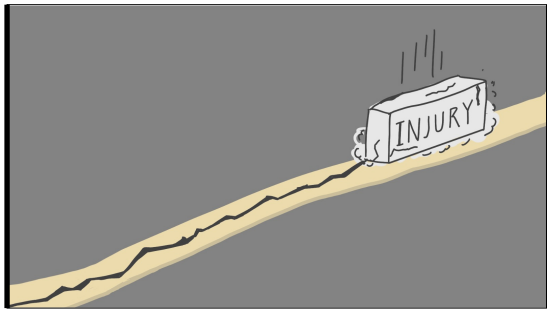
2K 0:40



for signals to be delivered.

"Muscle city" contracts

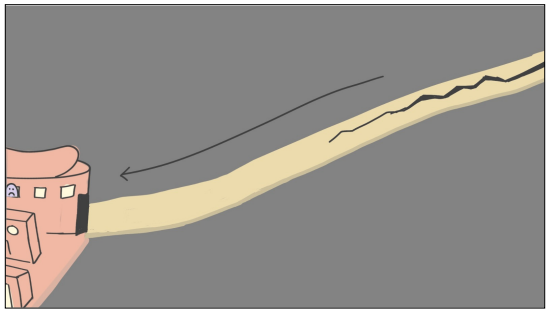
3A 0:42



If the nerve pathway to relay these signals is disrupted,

Injury stone/block drops on nerve bridge, cracking it.

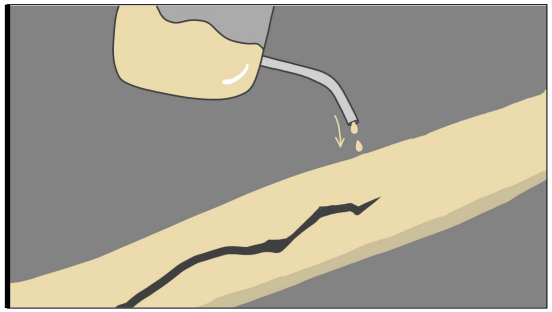
3B 0:44



they can no longer reach their muscle to initiate movement.

Crack continues all the way to the "muscle city"

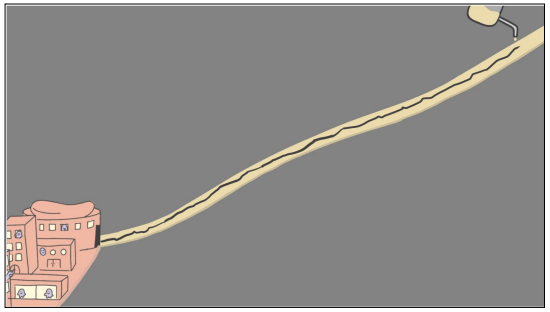
4A 0:46



Luckily, peripheral nerves can regrow, but very slowly, and in many cases, only if the damage is repaired.

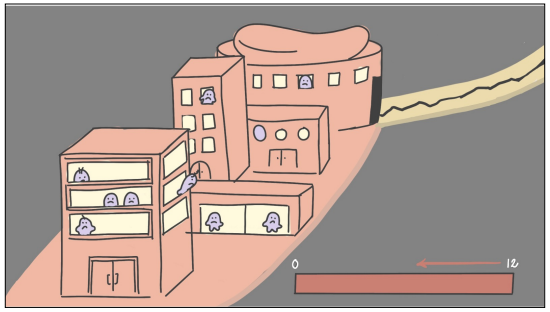
Yellow liquid to repair the "nerve bridge" slowly drops

4B 0:48



If the site of injury is far, it will take a long time for the nerve to regrow to the muscle.

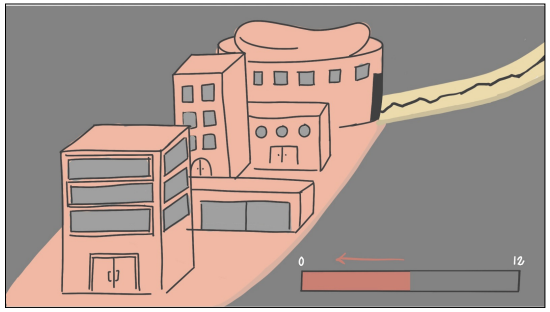
4C 0:50



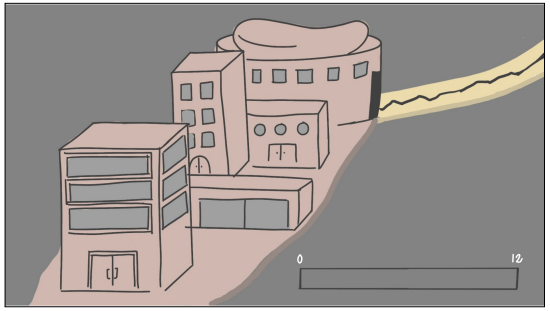
This is a problem because a muscle without nerve signals

Red bar depletes

4D 0:52

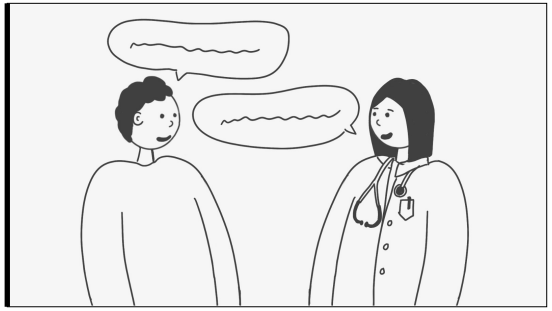


4E 0:54



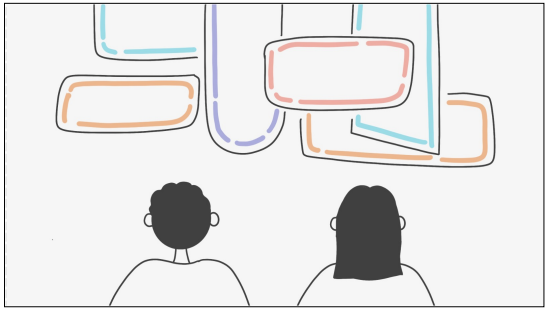
permanently loses its ability to function after 12-18 months.

5A 0:55



So, it is very important to see a nerve surgeon early and discuss the potential options for the management of your nerve injury.

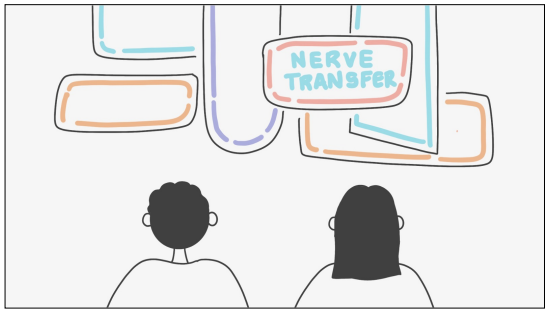
5B 0:57



There are many good treatments available today!

Patient and surgeon turn with their backs facing audience. Blank signs appear one by one.

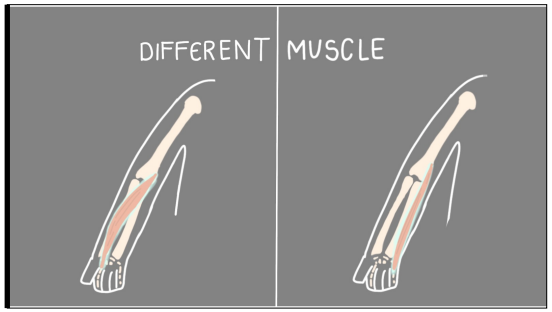
5C 0:59



One option is nerve transfer surgery.

Nerve transfer sign lights up

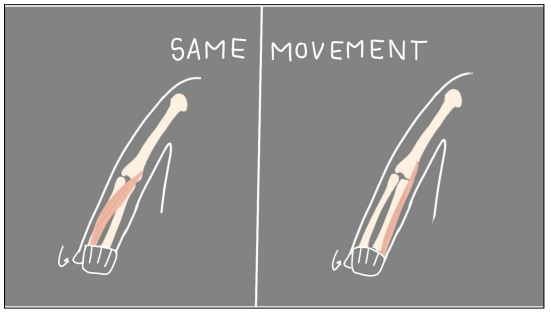
6A 1:01



Our body has some different muscles

Muscles are briefly highlighted

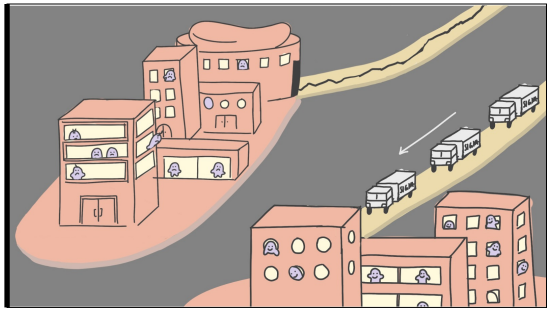
6B 1:03



for the same movement.

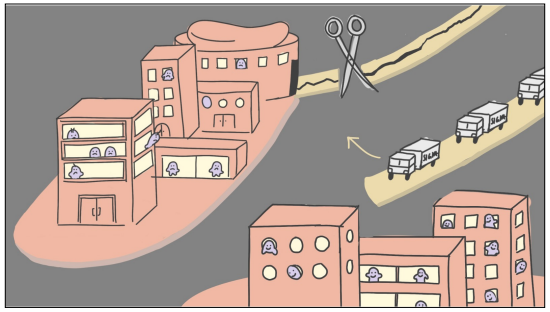
Both wrists flex

7A 1:05



So, a surgeon

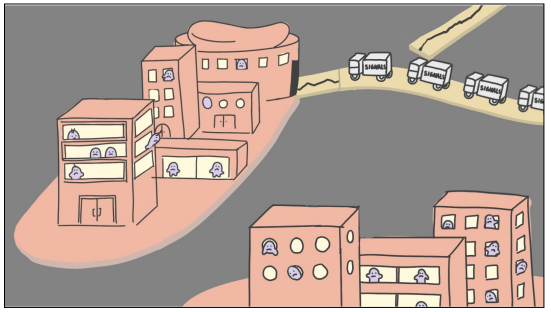
7B 1:07



will take and reroute a healthy “donor” nerve from a repetitive functioning muscle

Injured and "donor nerve" are cut

7C 1:09



to the injured nerve near the non-functioning muscle without losing your original movement.

Nerve is transferred

ALEX_MRP

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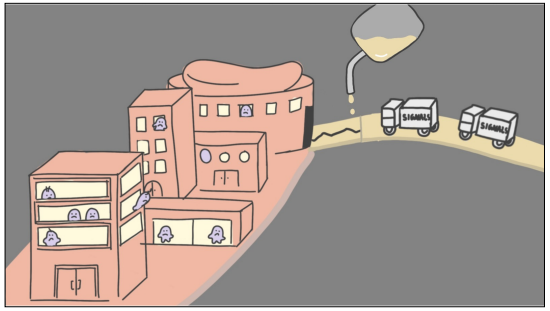
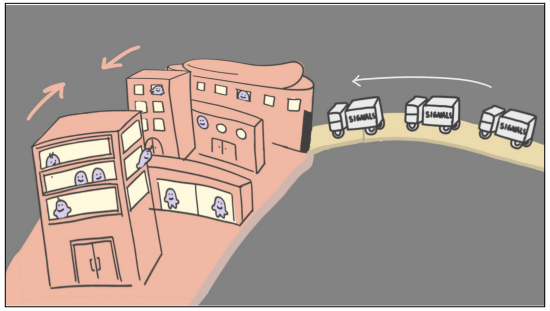
7D 1:11



The surgery reduces the distance that the nerve must grow to reach the muscle,

Repair of a small distance.

7E 1:13



allowing connection before permanent damage occurs.

Muscle contracts

8A 1:15

Now that we've looked at

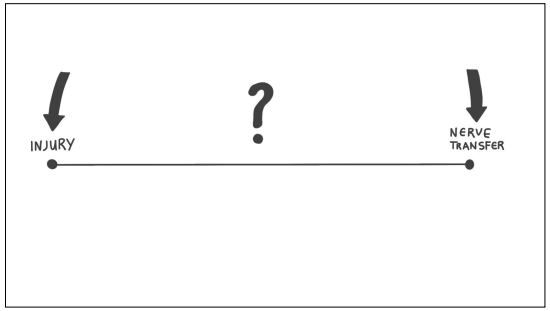
8B 1:17

what happens here

8C 1:19

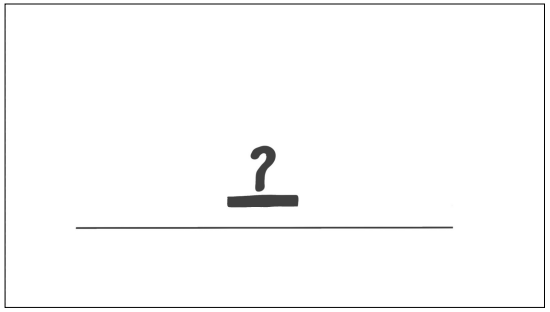
and here,

8D 1:21



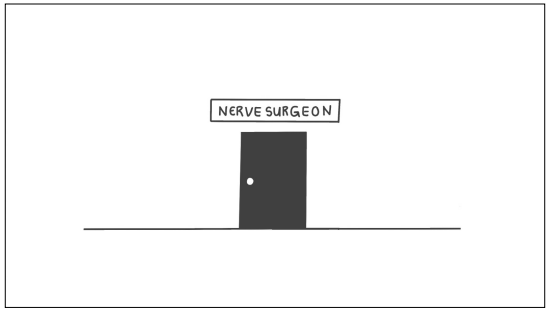
but what happens in between?

8E 1:23



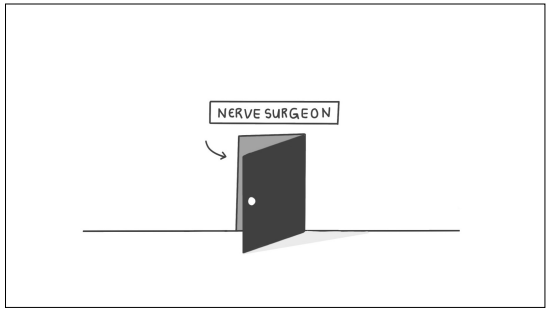
Question mark becomes the door

8F 1:25

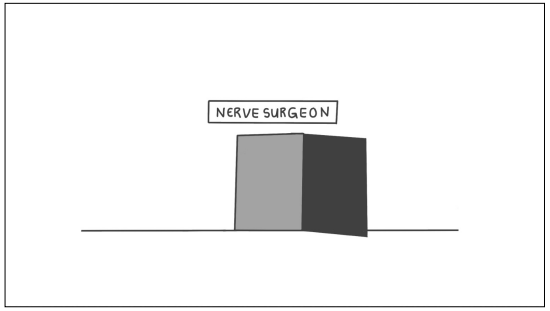


Nerve surgeon consultations!

8G 1:27



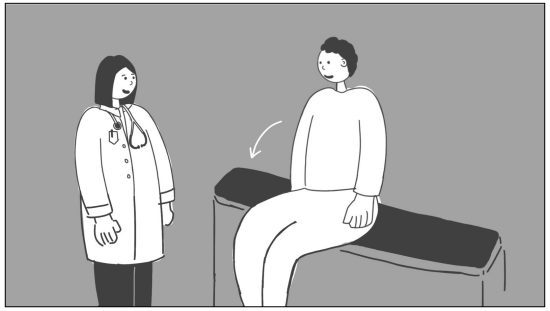
8H 1:29



During one of your visits,

Camera follows through door

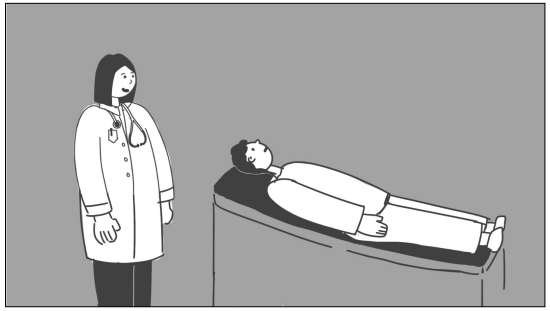
8I 1:31



you may undergo nerve studies to determine the severity of your nerve injury.

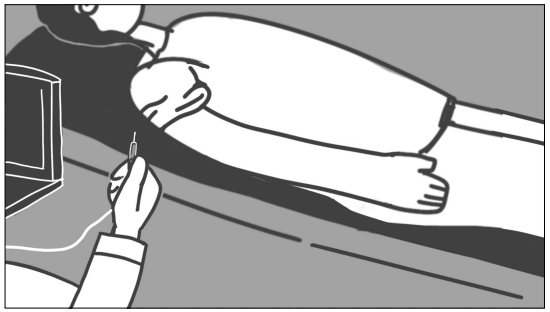
Patient lies down

8J 1:33



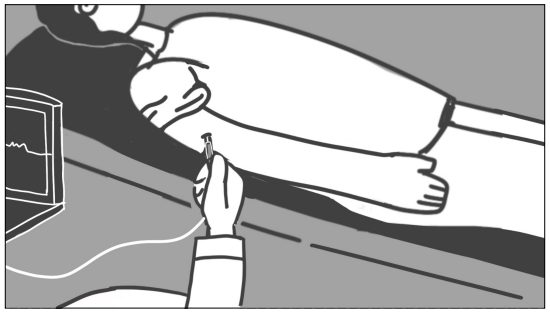
One of these tests involves

8K 1:35



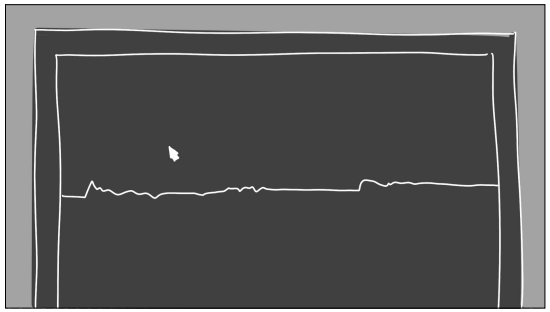
putting a small pin

8L 1:37



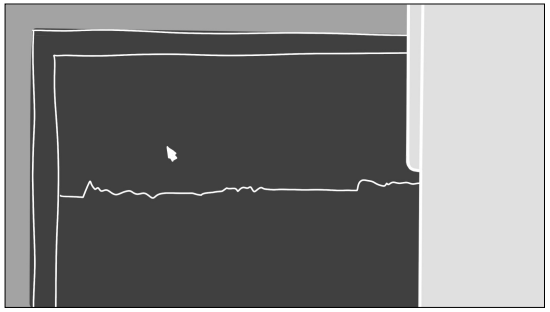
into your muscle

8M 1:39



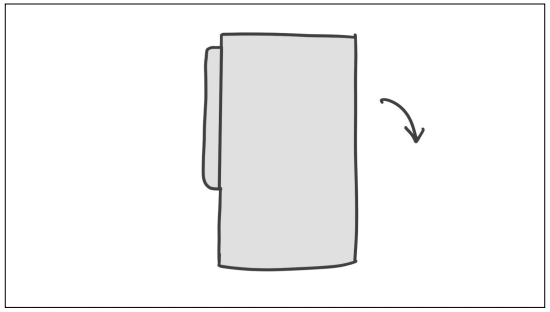
to see whether there is any nerve-to-muscle connection.

8N 1:41



These tests are very important to help the doctor determine

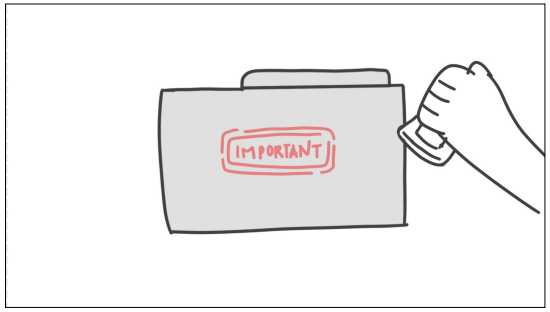
8O 1:43



what surgical or non-surgical

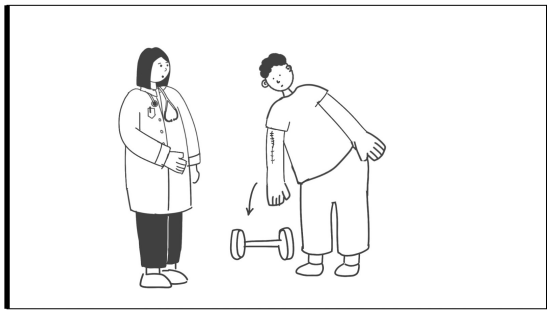
Folder rotate right

8P 1:45



treatment is the most suitable for you.

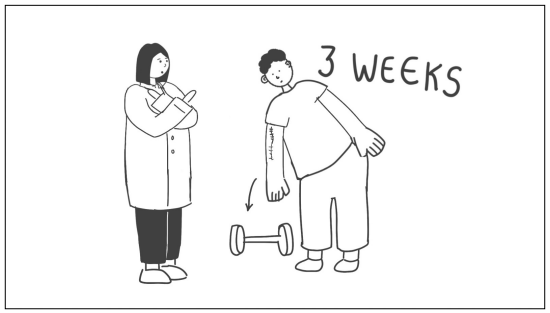
9A 1:47



If a nerve transfer surgery is performed,

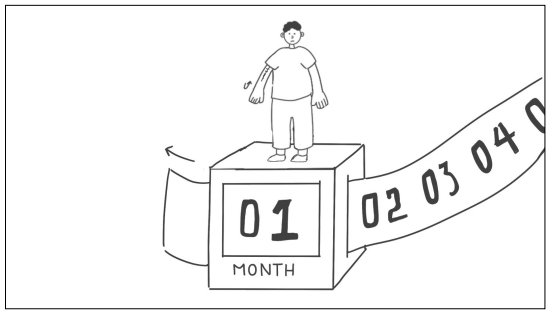
Patient attempts to lift the weight

9B 1:49



you may not be able to put weight on the surgical area for up to 3 weeks to protect the connected nerve.

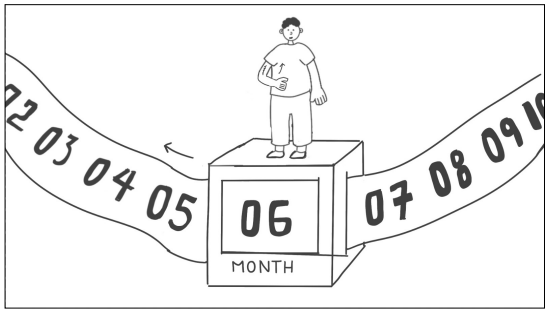
9C 1:51



It is important to know that the results of a nerve transfer

Paper runs through the block. Patient tries but is unable to flex arm.

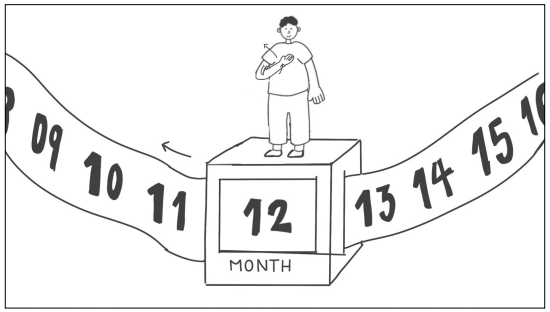
9D 1:53



may take from 6

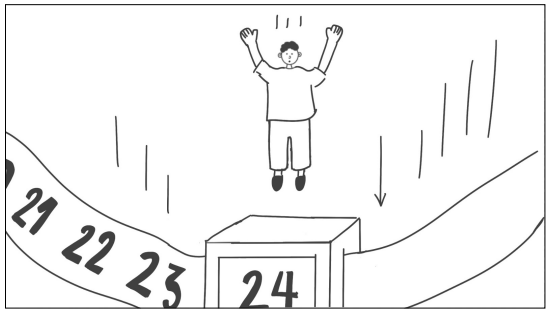
Patient starts to flex arm a little.

9E 1:55



up to 12 months before you start seeing improvements and up to 2 years for maximal results.

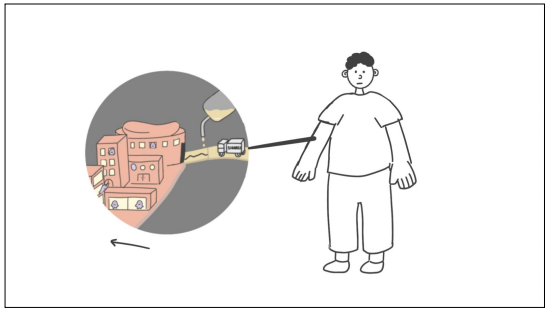
9F 1:57



Patience is key for this long recovery process

Patients and block fall.

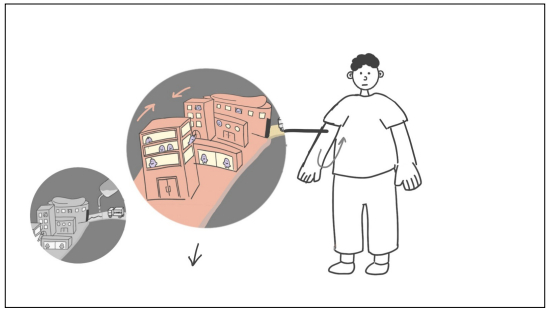
9G 1:59



because time is needed for the nerve to reach the muscle,

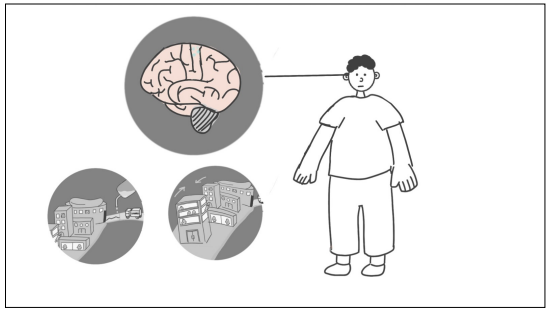
Patient lands

9H 2:01



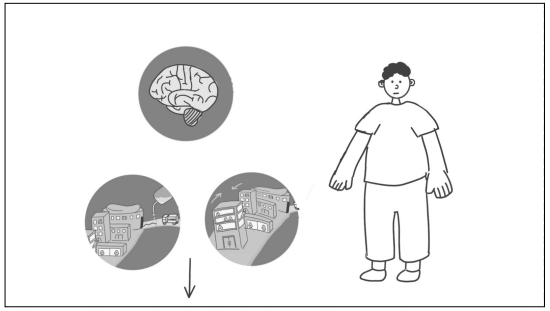
for the muscle to slowly get stronger,

9I 2:03



and for your brain to be re-trained.

9J 2:05



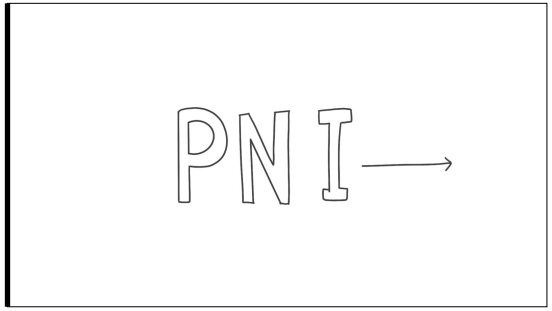
3 Circles fall and exit

9K 2:07

Your doctor and occupational or physiotherapist will be with you through this journey and guide you on exercises and what to expect.

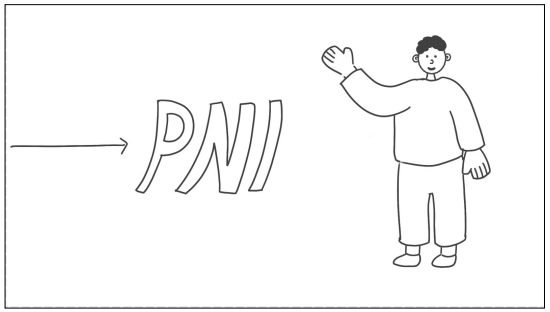
Doctor walks in from right. Patient slowly flex arm

10A 2:09

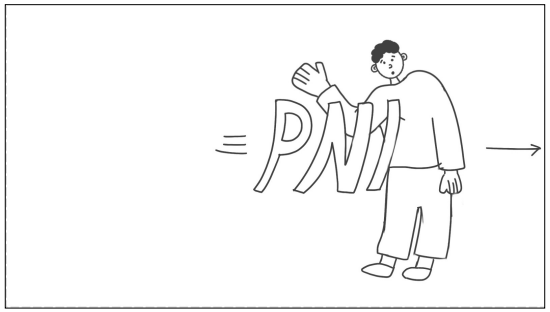


Because peripheral nerve injuries

10B 2:11

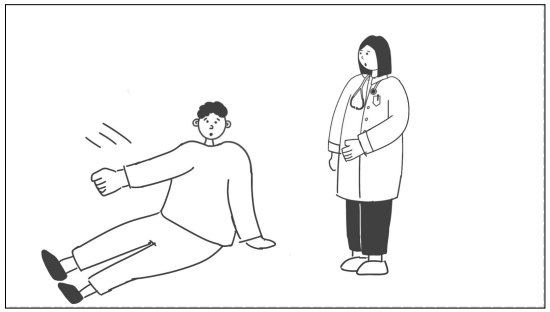


10C 2:13



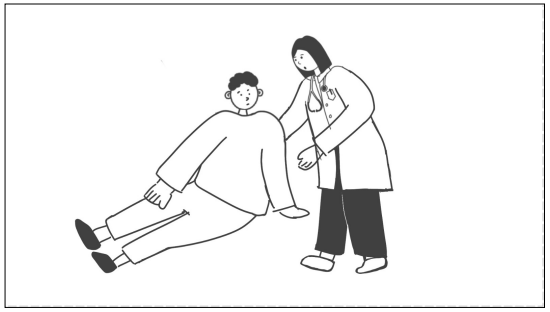
can have devastating effects,

10D 2:15



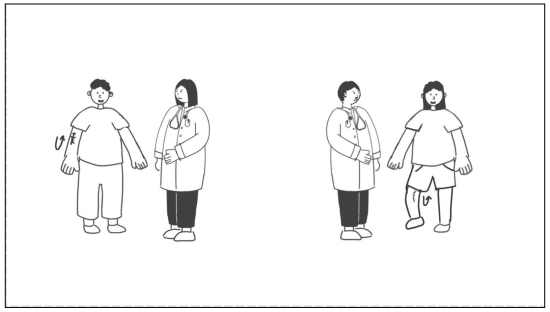
it is important to see a nerve surgeon as soon as possible because time is muscle.

10E 2:17



Patients gets up with the help of surgeon.

10F 2:19



Earlier treatment leads to better surgical outcomes for both muscle

Patient (man) slowly flexes arm. Patient (women) flexes knee.

10G 2:21

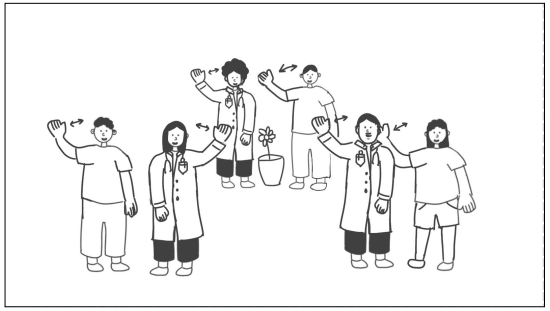
and sensory function. Procedures such as nerve transfers,

Middle patient touches flower

ALEX_MRP

Boards: 73 | Shots: 10 | Duration: 2:25 | Aspect Ratio: 16 : 9
DRAFT: MARCH 4, 2022

10H 2:23



have the potential to reduce nerve pain and recover normal muscle movement and sensation.

All wave.