



SELF HELP BOOK FOR **CARPAL TUNNEL SYNDROME!**

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THE ESSENTIAL GUIDE TO A
QUICK RECOVERY

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NEVER SUFFER AGAIN
DO NOT IGNORE THE
CARPAL TUNNEL SYNDROME
**YOUR HANDS ARE UNIQUE
AND ARE PRECIOUS
ASSETS FOR YOUR DAILY
ACTIVITIES AND INDEPENDENCE.**



SELF HELP BOOK FOR CARPAL TUNNEL SYNDROME!

THE ESSENTIAL GUIDE TO A QUICK RECOVERY.

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Carpal tunnel syndrome is a common condition that is often overlooked. It can cause irreversible damage if not treated promptly. This practical guide, written by two experts in carpal tunnel syndrome, will help you understand the condition and how to adopt effective measures to relieve your symptoms. In most cases, carpal tunnel syndrome can be relieved without surgery ! **Informative videos accompany this book and are available through the following link: <http://www.drbrutus.com/hand-surgery/endoscopic-carpal-tunnel-decompression/>**

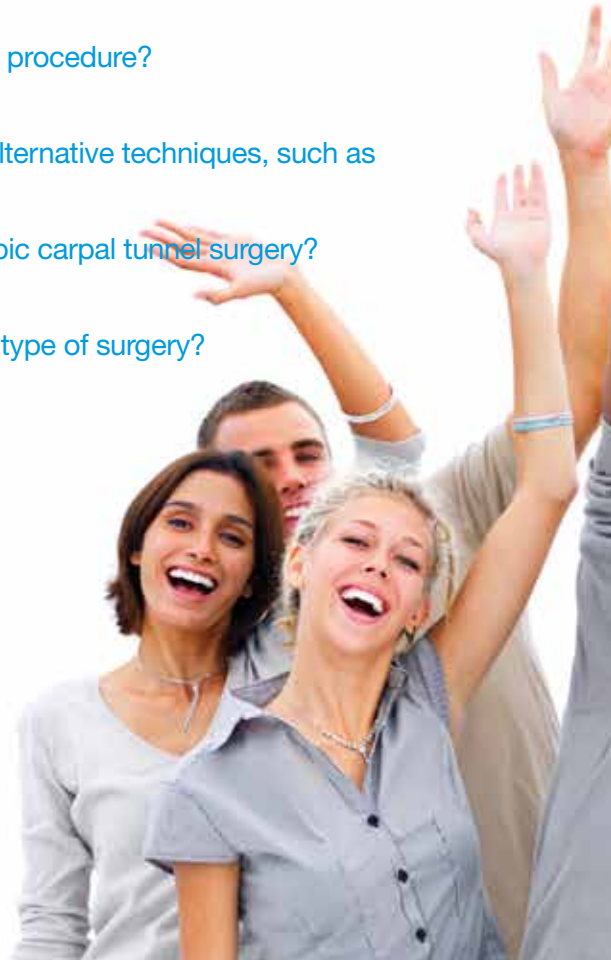
By reading this, in only a few minutes you will find the answers to all the must-ask questions you might have about carpal tunnel syndrome!

You will be thoroughly informed regarding the latest knowledge about this disease and you will learn how to treat yourself effectively so that you can resume your personal, professional and leisure activities. At the end of this book, you will know how and when to consult a hand surgeon should it become necessary.

You also will become familiar with the dramatic advances made by modern minimally invasive techniques to decompress the carpal tunnel quickly, in an almost painless manner and under local anesthesia. Endoscopic surgery is a recent advance in the treatment of carpal tunnel syndrome that can enable you to return to your activities in a few days.

TABLE OF CONTENTS

- 1 / What are the symptoms of carpal tunnel syndrome?
- 2 / The carpal tunnel syndrome is very common. Who can be affected?
- 3 / What is the cause of carpal tunnel syndrome?
- 4 / How is the diagnosis made and what kind of tests do I need if I have symptoms?
- 5 / Is ultrasound of the median nerve and wrist useful?
- 6 / Do I need an X-ray?
- 7 / Do I need a magnetic resonance imaging also known as MRI?
- 8 / Do I need an electromyogram?
- 9 / Is carpal tunnel syndrome work-related or due to repetitive motion?
- 10 / What can I do to relieve the pain and numbness that wakes me up?
- 11 / How useful is a cortisone injection into the carpal tunnel?
- 12 / How does cortisone work in treating carpal tunnel syndrome?
- 13 / Why is it absolutely necessary to treat carpal tunnel syndrome?
- 14 / I tried all the steps suggested above and nothing works. What should I do?
- 15 / Is surgery necessary?
- 16 / What type of anesthesia is required for this procedure?
- 17 / How is this surgery usually performed?
- 18 / Are there more modern and less invasive alternative techniques, such as endoscopy?
- 19 / Are there different techniques for endoscopic carpal tunnel surgery?
- 20 / Are these treatments painful?
- 21 / What are the chances of success with this type of surgery?



- 22 / We often hear horror stories related to the carpal tunnel syndrome, are they true?
- 23 / How frequent are complications after this type of surgery?
- 24 / What are the risks of damaging an important nerve?
- 25 / I have heard of reflex sympathetic dystrophy syndrome (RSDS) or complex regional pain syndrome (CRPS)? What does this mean?
- 26 / What about stiffness? I've heard I might need rehabilitation after surgery.
- 27 / What about painful scars in the hand? What kind of recovery should we expect?
- 28 / Is it true that patients can often return to work one week after surgery?
- 29 / Is it necessary to wear a brace or a splint after surgery?
- 30 / What are your suggestions for choosing the best doctor and what questions should a patient ask their doctor?
- 31 / What is the age limit for a patient who wants to have carpal tunnel surgery?
- 32 / What are the five unfortunate errors made most frequently by patients and their doctors?
- 33 / **BIBLIOGRAPHY**

YOUR SELF HELP BOOK TO PREVENT AND TREAT YOUR
CARPAL TUNNEL SYNDROME



1 /

WHAT ARE THE SYMPTOMS OF CARPAL TUNNEL SYNDROME?

The patient who suffers from carpal tunnel syndrome will present with numbness primarily in the thumb, index, middle and half of the ring finger.



This unpleasant tingling sensation occurs at night or early in the morning, and often causes insomnia or sleep disturbance. A burning pain sensation is often felt. Patients often have to shake the affected hand to make the numbness go away.

During the day, symptoms can be triggered by certain activities such as driving, holding a phone or reading a newspaper.

With time and progression of the problem, loss of sensation, first transient and later permanent, appears in the fingers of the hand. Affected patients lose sensation of touch, in the thumb, index, middle and half of the ring finger, which is the area that corresponds to the median nerve. Thereafter, when the disease becomes more severe, there may be atrophy, which is a wasting of the muscles of the base of the thumb and in the palm of the hand. Loss of manual dexterity and a decrease in the strength of the thumb and index finger follows. It then becomes difficult to manipulate small objects such as coins or buttons. Patients may feel frustrated or clumsy if they have difficulty holding a pen or even writing.

2 /

THE CARPAL TUNNEL SYNDROME IS VERY COMMON.

WHO CAN BE AFFECTED?

Carpal tunnel syndrome is a common condition that affects men and women usually after age fifty. It is four times more common in women than in men.

This disease affects people in otherwise good health. However, carpal tunnel syndrome is more common in people who have certain risk factors that predispose them to the disease

- Diabetes
- Smoking
- Pregnancy
- Osteoarthritis
- Hypothyroidism
- Obesity
- Menopause
- Radius bone fracture

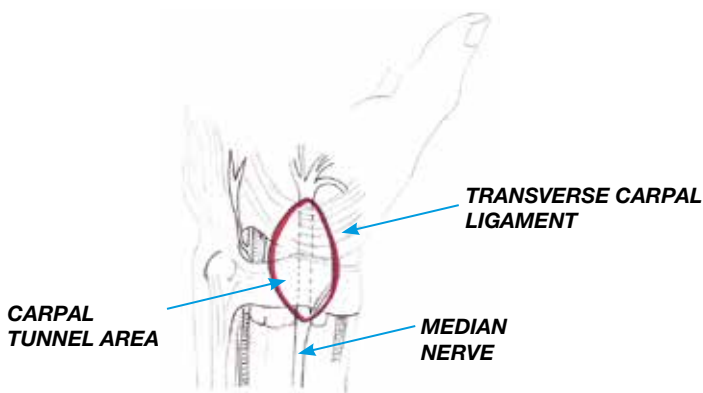
Occupational factors such as repetitive strong gripping movements, flexion and extension of the wrist or exposure to vibrating tools are sometimes referred to as risk factors.

Most often, no predisposing risk factor is found and then the diagnosis is likely age related and described as "idiopathic carpal tunnel syndrome."

3 /

WHAT IS THE CAUSE OF CARPAL TUNNEL SYNDROME?

The carpal tunnel is an area of the wrist found between the junction of the hand and forearm. It contains nine flexor tendons which serve to flex the fingers and a major nerve known as the median nerve. This important nerve gives sensation (tactile sense) to the thumb, index, middle and half of the ring fingers. The little finger is usually spared because it is not innervated by the median nerve but by the ulnar nerve. Numbness of the little finger or pinky is suggestive of another disease. The median nerve also innervates and stimulates the muscles of the base of the thumb in the palm of your hand.



The floor of the carpal tunnel is formed by the bones of the wrist. The roof of the canal by a very strong and thick ligament called the transverse ligament or the annular ligament of the wrist.

In some situations, due to swelling and inflammation in the tendons, the pressure in the canal increases and compresses the median nerve. This increase in canal pressure impairs blood circulation and oxygenation of nerve cells that make up the nerve. The nerve fibers are no longer able to operate normally and the speed of conduction of electrical signals in the nerve slows down, which manifests itself as numbness. In severe cases, nerve conduction stops completely. The nerve fibers and cells, called axons and neurons, can be damaged beyond repair which leads to loss of muscle fibers. Loss of muscle fibers leads to problems with movements of the thumb, and the loss of sensitivity becomes irreversible.

This is the danger of neglecting this condition or waiting too long to act.

4 /

HOW IS THE DIAGNOSIS MADE AND WHAT KIND OF TESTS DO I NEED IF I HAVE SYMPTOMS?

In general, carpal tunnel syndrome is easily recognized by the patient's history and chronology of symptoms. In some cases, it is necessary to obtain confirmation of the problem of compression of the median nerve by additional tests to ensure that it is carpal tunnel syndrome and not another problem.



The Phalen test is a physical exam where the wrist is brought into forced flexion and held in this position for a certain amount of time. Ideally, the elbow is held in extension, therefore completely straight. The onset of symptoms is then recorded in the rapidity of their appearance and their location.

5 /

IS ULTRASOUND OF THE MEDIAN NERVE AND WRIST USEFUL?

Ultrasound is a radiological technique that can identify and evaluate the state of the median nerve. In the case of nerve compression, the size of the nerve often is increased just above the compression zone. Similar to a garden hose that is blocked in one place, you can see an expansion of the nerve just before where it is stuck. Ultrasound can detect the swelling of the nerve and measures the dimensions of the nerve. Ultrasound examination can also identify the presence of an anatomical defect (such as abnormal muscle) or a mass in the channel, such as a tumor, a cyst, or a vascular dilation.

6 /

DO I NEED AN X-RAY?

Radiography is not a useful test in the diagnosis of carpal tunnel syndrome because it only shows bone structures and not soft tissues such as tendons or nerves.

7 /

DO I NEED A MAGNETIC RESONANCE IMAGING ALSO KNOWN AS MRI?

Magnetic Resonance Imaging is a sophisticated exam that allows visualization of soft tissues, including the tendons and nerve within the canal. This test can identify if there is an abnormal inflammation of tendons. This test is not useful in most cases. It is useful for the unusual presentations of carpal tunnel syndrome. An MRI can be difficult to obtain. It is a fairly expensive test that should be used only when indicated by your doctor.

8 /

DO I NEED AN ELECTROMYOGRAM?

Electromyography (EMG) and measurement of nerve conduction velocities are useful and informative exams. The EMG evaluates the performance and function of the nerve rather than an imaging test that only visualizes the nerve.

The nerve can be compared to a large electric cable that contains hundreds of wires and cords (fascicles of nerve fibers). Nerve compression will compromise the vascularity and oxygenation of nerve axons. As a result, conduction velocity, which is the speed at which signals travel in the nerve fibers, decreases measurably. The EMG provides essential information on the progression of the disease and therefore, the prognosis for recovery.

It is very important to know that this test may be falsely negative in the presence of symptomatic carpal tunnel syndrome in less advanced cases. False reassurance and delays in treatment can result if the physician or the patient is not aware of the limitations of this test.

9 /

IS CARPAL TUNNEL SYNDROME WORK-RELATED OR DUE TO REPETITIVE MOTION?

Frequent repetition of flexion and extension wrist movements without rest, or strong hand grip may trigger or worsen symptoms of carpal tunnel syndrome.

Work that is physically demanding and very repetitive can increase the symptoms.

Prolonged computer keyboard or mouse work is not commonly recognized as a causal factor in carpal tunnel syndrome.

However, when suffering from carpal tunnel syndrome, activities which maintain the wrist in inappropriate positions can aggravate symptoms.

10 /

WHAT CAN I DO TO RELIEVE THE PAIN AND NUMBNESS THAT WAKES ME UP?

It is important to know that numbness or loss of feeling in the fingers reveals the existence of a disease or illness, at one or more nerves of the arm or forearm.

If the numbness is limited to the thumb, index and middle finger, it is very probable that it is indeed a carpal tunnel syndrome. If numbness and wrist pain cause nocturnal awakenings, the diagnosis is almost certain

Measures to be taken immediately are :

- Perform stretching exercises of the nerve with the arm and wrist: :

FIGURE 1 / Stretch your elbow and place your wrist in a fully extended position, while also extending the fingers. Keep your elbow straight and raise the wrist toward the sky.

FIGURE 2 / Then, bend the wrist in flexion, keeping the elbow extended. So, keep your elbow straight and bring your hand down towards the ground.

Alternate the positions of the wrist from full extension to full flexion. Repeat these movements when symptoms occur. Movements should be done slowly, counting about 3 seconds to go from the extreme position of flexion to the extreme position of extension, and vice versa. Repeat 5 to 10 times each movement.

FIGURE 3 / Continue to make the same movements but change the position of the elbow. Thus, the elbow is bent at a right angle, or 90 °, and the wrist is bent backwards and maintained in this position

FIGURE 4 / The elbow is then maintained in the same position and the wrist is bent forward, resembling the image of a duck's head.

These stretching exercises are intended to stretch and lengthen the nerve and thus help reduce the pressure on the nerve

NERVE GLIDING EXERCISES FOR THE WRIST AND ELBOW



- The stretching poses such as those practiced in yoga relax the transverse carpal ligament that forms the roof of the canal and also the carpal ligaments which connect the bones forming the floor of the channel. The goal is to make the channel less rigid and therefore, reduce the pressure locally. These exercises are effective for less severe forms of compression of the median nerve at the wrist

FIGURE 5, 6, 7, 8 /

- Identify activities that trigger symptoms and avoid them for a few days. An occupational therapist can help you change your posture or your work habits. It is also important to alternate tasks that involve your hands to spare your wrist. Change your keyboard to an ergonomic keyboard, use supports for your forearms to avoid wrist extension and try to take regular “micro-breaks”. Those could be some suggestions that could be given. If a wrist support is added to the keyboard, make sure it doesn’t put too much pressure directly on the wrist and therefore increasing pressure in the carpal tunnel.
- Get a wrist splint. The orthosis must place the wrist in a neutral position. These orthosis are available in pharmacies, in orthotic stores or from specialized occupational therapists. They allow the nerve canal to rest and thus avoid the increasing pressure of the canal during flexion and extension of the wrist. The neutral position is preferable to extension. Orthosis can be custom made to the patient (molded thermoplastic) or from prefabricated models. The splint should be worn at night for four to six weeks. When it is removed, see if the symptoms reappear or increase in intensity. If the symptoms persist or worsen, continued use of the orthosis is not recommended without consulting a doctor because it means that the compression is severe and progressive, and thus it is important to consult a hand surgeon.



- Change the tools or work equipment that you use which aggravate your symptoms. Keep your wrists in a neutral position rather than in flexion or extension. Use modified tools that reduce the importance of grip strength required for a task. Avoid external pressure on the carpal tunnel area called the “ heel of the hand .” Increase the diameter (the size) of handles and frequently used tool handles.

Avoid using electric tools such as saws or drills that vibrate. Choose tools that cause less vibration. Wearing anti-vibration gloves may also be beneficial.

STRETCHING EXERCISES AND POSTURES



- **Modify your diet:** You should reduce the amount of salt in the diet because salt promotes water retention and may lead to edema or swelling in the tendons.
- **Vitamin B6** may be useful in cases where there is an existing vitamin B6 deficiency. However, vitamin B6 may not benefit everyone, a blood test can reveal the deficiency.
- **Ice** may be applied locally at the wrists if it relieves symptoms. It can be applied for periods of 10 minutes, waiting a minimum of 2 hours before reapplication. Applying a towel, wet with cold water or a water bottle filled with cold or frozen water, directly on the carpal tunnel area could provide relief.
- **Drugs available without a prescription.** In the absence of contra-indications, you can take anti-inflammatory drugs (NSAIDs) for a few days such as ibuprofen, for example.
- **Perform hot-cold baths:**
To reduce the feeling of fullness or visible swelling that you feel in your hand you can use a hot-cold bath. These baths will create an artificial “pumping” in your hand.

Procedure :

- 1.** Take two containers that allow you to immerse your hand completely in water. If your kitchen sink has two basins, it can be easily used for the baths. Make sure the wrist is kept straight.
- 2.** Fill one container with warm water, warm enough to be easily tolerable by the unaffected hand but not too hot, to avoid burns.
- 3.** Fill another container with cold tap water.
- 4.** Immerse the hand, including the wrist, in one container for **one full minute**, measured by a timer
- 5. Alternate from one container to the other every minute, for a total of 10 minutes.**

You should feel some relief following the use of the hot-cold bath. They can be performed twice daily, once in the morning and once in the evening. If after one week you notice any benefit or decreased swelling of your hand after performing these baths you can stop them.

11 /

HOW USEFUL IS A CORTISONE INJECTION INTO THE CARPAL TUNNEL?

Cortisone injections into the carpal tunnel, when properly performed by a specialist, are minimally painful and can temporarily improve symptoms. However, it is not advisable to repeat the injections many times since it may mask the symptoms of nerve compression while the nerve condition continues to worsen. Repeated injections could lead to irreversible damage.

Risks associated with the injection of cortisone rarely occur. Risks may include mechanical injury to the median nerve, weakening of the soft tissues and skin atrophy. An area of skin discoloration, called depigmentation, or even skin depression can be irreversible. Risk of infection after cortisone injection is also possible because the cortisone decreases the capacity of the body to fight infections. The injected cortisone is not involved in weight gain as it happens with cortisone tablets taken by mouth.

Cortisone may be offered when the diagnosis is not certain. If symptoms improve after this injection, the diagnosis is confirmed and the patient will be offered a permanent treatment. However if there is no improvement, even temporarily, it is necessary to investigate a different possible diagnosis.

12 /

HOW DOES CORTISONE WORK IN TREATING CARPAL TUNNEL SYNDROME?

Cortisone is an extremely powerful anti-inflammatory medication that, when injected into the carpal tunnel, will essentially deflate the flexor tendons that are responsible for bending your fingers. The pressure in the channel, and thus pressure on the median nerve, decreases.

This effect is temporary so, unfortunately, the relief will last from several weeks to several months.

13 /

WHY IS IT ABSOLUTELY NECESSARY TO TREAT CARPAL TUNNEL SYNDROME?

It is never normal to have numbness or loss of sensation in the hand. It is important not to ignore symptoms and treat the condition quickly. The risk of irreversible damage is real and can manifest as a permanent loss of sensitivity in the thumb, index, middle and half of the ring finger. The damage can be so severe that there is permanent and irreversible atrophy of the muscles at the base of the thumb.

To avoid permanent damage, it is essential to treat carpal tunnel syndrome.

14 /

I TRIED ALL THE STEPS SUGGESTED ABOVE AND NOTHING WORKS. WHAT SHOULD I DO?

The failure of conservative treatment indicates that nerve compression is severe enough and a consultation with a hand surgeon is essential. An intervention to decompress the median nerve is indicated to reduce the pressure in the carpal tunnel, improve blood circulation in the nerve and allow nerve fibers to re-oxygenate to heal, and finally to prevent further degradation that could lead to irreversible damage.

15 /

IS SURGERY NECESSARY?

In a situation where medical or conservative treatment fails, yes there is a formal indication for surgery and the principle of surgery is quite simple:

The carpal tunnel is now too narrow and rigid for its contents, nine flexor tendons and the median nerve. The floor of the channel is formed by the bones of the wrist and the roof of the channel is formed by a thick ligament, known as the transverse carpal ligament.

The pressure in the carpal tunnel has become too large and your median nerve suffers because it is poorly oxygenated and nerve fibers that compose it are slowly dying. Dead nerve fibers cannot perform their function to give sensation to the skin or allow movement of muscles.

The goal of surgery is to reduce the pressure in the carpal tunnel to allow the nerve fibers to re-oxygenate. The wrist bone cannot be removed, so the solution is to split the transverse ligament which forms the roof of the carpal tunnel so that it opens and the volume in the tunnel increases. This reduces the pressure in the tunnel immediately and the nerve is decompressed.

The severed ligament will heal in its new position and once healed will be longer than it was before. The size of the carpal tunnel will be permanently increased.

16 /

WHAT TYPE OF ANESTHESIA IS REQUIRED FOR THIS PROCEDURE?

Today, this procedure is most commonly performed under local anesthesia, in a manner that is both comfortable and very safe. There is therefore no reason, under normal circumstances, to perform this surgery under regional anesthesia, which is a complete anesthesia of the arm, and even less under general anesthesia. Risks related to local anesthesia are less than regional and general anesthesia.

17 /

HOW IS THIS SURGERY USUALLY PERFORMED?

Conventional carpal tunnel surgery is an open surgery. This technique requires a two to three centimeters incision in the palm of your hand. The purpose is to cut the transverse carpal ligament to expand the canal, but this technique requires sacrifice of the following;

- Skin
- Subcutaneous fatty tissue which often contains small nerve fibers
- The muscle which lies just above the transverse carpal ligament muscle



Indeed, all of these structures lie above the ligament that needs to be cut. This conventional technique provides good results but has many disadvantages :

- Unnecessary sacrifice of important structures
- Extended healing period
- Risk of adhesions and postoperative increase stiffness
- Scar in the palm of the hand may remain hypersensitive for months and can be unsightly
- Loss of postoperative strength can last approximately four to six months

Treatment of both hands must usually be separated from a period of two to three weeks

18 /

ARE THERE MORE MODERN AND LESS INVASIVE ALTERNATIVE TECHNIQUES, SUCH AS ENDOSCOPY?

Indeed, there are other techniques, much more recent and sophisticated which are less invasive and allow incision of only the transverse carpal ligament, without any incision in the palm. The skin, the delicate subcutaneous fatty tissue, and the muscles of the palm are left intact and surgical trauma is very limited.

This is done through a small incision in the wrist which allows the introduction of a small high-definition camera inside the carpal tunnel, visualization of the transverse carpal ligament that is then cut with a small retractable blade under direct vision.

This is a very safe procedure that allows for a much faster recovery with less pain, stiffness, and less likely to have a painful scar in the palm.

The consequences of this technique are so reduced that, unlike the open technique, both hands can be operated at the same time. This allows for faster recovery time compared to older techniques.



19 /

ARE THERE DIFFERENT TECHNIQUES FOR ENDOSCOPIC CARPAL TUNNEL SURGERY?

In fact, there are two types of endoscopic surgery. The more recent type uses a single short one centimeter incision at the wrist crease. This technique “uni-portal” was described by Dr. Agee and bears his name. It requires specialized equipment (<http://www.drbrutus.com/hand-surgery/endoscopic-carpal-tunnel-decompression/>)

Its advantages are :

- A single very small incision in the forearm
- Perfect visualization of anatomical structures
- The wrist remains straight in an anatomical position during the entire duration of the intervention, thereby reducing the surgical risks (the wrist extension technique used by the “bi-portal” technic described below requires movement of the median nerve).

The other technique is called “ bi-portal ” because it requires two incisions, one on the wrist and one in the palm of your hand. It is called the “Chow” technique. Unfortunately, this technique requires that the wrist remains hyperextended during the operation which moves the median nerve, stuck to the transverse ligament. The risk of complications therefore is slightly higher than the “uni-portal” technique.

20 /

ARE THESE TREATMENTS PAINFUL?

The endoscopic surgery is performed under local anesthesia, which implies that the affected region is anesthetized, and the patient does not feel discomfort during surgery.

Following surgery, most patients take light painkillers for less than twenty-four hours (paracetamol or acetaminophen) and non-steroidal anti-inflammatory medications. This is a procedure that is not very painful.

Patients can recover function of their hand immediately after the surgery and they are encouraged to use it. A small bandage is placed over the incision and it is possible to shower normally the next day.

Patients can dress, eat, drink or drive immediately as their recovery is extremely fast. This is a great advantage over conventional surgery.

21 /

WHAT ARE THE CHANCES OF SUCCESS WITH THIS TYPE OF SURGERY?

Endoscopic carpal tunnel surgery has a success rate of from 98 to 99 %, especially if the surgery is performed early on. Avoid waiting too long for the operation to minimize the consequences.

Like all endoscopic techniques, it must be performed by a hand surgeon experienced in endoscopy.

22 /

WE OFTEN HEAR HORROR STORIES RELATED TO THE CARPAL TUNNEL SYNDROME, ARE THEY TRUE?

The horror stories are rare, but often discussed, which is true for all surgeries. However carpal tunnel surgery is a highly secure surgery that has been proven in the medical literature, provided it is performed by a hand surgeon who is a plastic surgeon or orthopedic surgeon with additional training and expertise in endoscopic surgery of the hand.

Under these conditions, the horror stories are even rarer after this surgery because there are fewer complications. This is an operation that is less aggressive and less debilitating than open surgery.

23 /

HOW FREQUENT ARE COMPLICATIONS AFTER THIS TYPE OF SURGERY?

Infection is rare but can be caused by bacteria that penetrate the skin, because the skin is incised. These bacteria can grow and cause an infection. The rate of infection after this type of surgery is less than 1 % and even lower with the least invasive surgery which minimizes tissue damage. Healing problems are rare with endoscopic surgery.

24 /

WHAT ARE THE RISKS OF DAMAGING AN IMPORTANT NERVE?

Nerve laceration, the section of the median nerve in part or in whole, is a very rare complication. It is essential to choose an experienced surgeon. The prudent surgeon will not hesitate to convert the endoscopic approach to open surgery in patients for whom endoscopic surgery is not possible.

25 /

I HAVE HEARD OF REFLEX SYMPATHETIC DYSTROPHY SYNDROME (RSDS) OR COMPLEX REGIONAL PAIN SYNDROME (CRPS). WHAT DOES THIS MEAN?

The CRPS is a complex pain syndrome which is located in a specific region. It is an amplified and disproportionate reaction of the body to a painful injury such as a surgical trauma. This is a very rare complication with carpal tunnel surgery and more rare with endoscopic surgery because it is less aggressive and less debilitating. It is important that your hand specialist quickly recognizes any symptoms of CRPS and it is adequately treated.

26 /

WHAT ABOUT STIFFNESS? I'VE HEARD I MIGHT NEED REHABILITATION AFTER SURGERY.

Stiffness of the wrist after surgery is mainly due to the healing scar tissue. It is still very rare with endoscopic surgery because the patient is able to move their hand immediately. The patient has less pain therefore they move the hand earlier. Less scarring involves less fibrosis. The stiffness of the fingers and wrist is exceptional.

It is rare that patients need rehabilitation after endoscopic surgery. With open surgery it is often necessary to undergo several weeks of rehabilitation in occupational therapy or physical therapy.

27 /

WHAT ABOUT PAINFUL SCARS IN THE HAND? WHAT KIND OF RECOVERY SHOULD WE EXPECT?

Conventional open surgery often leaves a scar that remains hypersensitive for weeks, in a very prominent area of the palm. Endoscopic surgery completely saves the palm.

Depending on the surgical technique chosen, recovery time varies from a few days or a few weeks to several months. With the endoscopic approach, patients can drive, dress, eat and drink immediately after surgery, as soon as their hand is awake.

Sport will be delayed depending on the type of activity. For cycling, or golf, a delay of about two weeks is given. For heavy activity such as push-ups or heavy physical work it takes four to six weeks to go back to performing those activities with endoscopic surgery, rather than three or four months with conventional surgery.

28 /

IS IT TRUE THAT PATIENTS CAN OFTEN RETURN TO WORK ONE WEEK AFTER SURGERY?

People who do light manual work will be able to resume work very quickly, after one to two weeks. Workers who perform heavy physical work, will probably have to wait about six weeks, unlike what happens with conventional surgery where three or four months are required for full recovery and return to work.

29 /

IS IT NECESSARY TO WEAR A BRACE OR A SPLINT AFTER SURGERY?

It is not necessary to wear a brace after surgery because it is important that the nerve is mobilized and moves freely in the wrist immediately after surgery.

Surgery has indeed created an internal wound in the ligament that will heal. Healing is done with fibrosis and nerve might to get caught in the scar.

To avoid this, it is important to mobilize the wrist and fingers early, and therefore not to wear a splint

30 /

WHAT ARE YOUR SUGGESTIONS FOR CHOOSING THE BEST DOCTOR AND WHAT QUESTIONS SHOULD A PATIENT ASK THEIR DOCTOR?

It is very important that the patient has a trusting relationship with their hand surgeon, that is to say, an orthopedic or plastic surgeon, who has had special training after surgical residency. The surgeon you choose should be devoted primarily to the practice of hand surgery.

This approach guarantees the best results with minimal risk of complications. Several studies have shown that the results are best when the surgeon is experienced and has performed a large number of procedures of this nature.

31 /

WHAT IS THE AGE LIMIT FOR A PATIENT WHO WANTS TO HAVE CARPAL TUNNEL SURGERY?

There is no age limit. The patient must be able to undergo a brief procedure for a few minutes under local anesthesia. This procedure was performed successfully in patients as old as 100 years old.

32 /

WHAT ARE THE FIVE UNFORTUNATE ERRORS MADE MOST FREQUENTLY BY PATIENTS AND THEIR DOCTORS?

- Ignoring the diagnosis: It is never normal to have numbness or loss of sensation in the hand. It is therefore important you notice symptoms, consult a doctor or other health professionals to make a final diagnosis.
- Delaying treatment due to difficulty to access services or negligence. Patients may expect that the symptoms will “go away on their own.”
- Wearing a splint for a long period: The orthosis must be worn at night for three to six weeks, then it should be removed to see if the treatment worked. It is wrong to continue wearing the splint for several months because irreversible damage can occur. It is important to identify the cause of the condition and correct it.
- Undergoing hand surgery without being fully aware of the different options available. Endoscopic surgery is an excellent option, open surgery may be a good option but it is important to know that several techniques exist. Do not hesitate to inform yourself and ask your surgeon.

This book is augmented by informative videos you can access by following the following link. <http://www.drbrutus.com/hand-surgery/endoscopic-carpal-tunnel-decompression/>

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