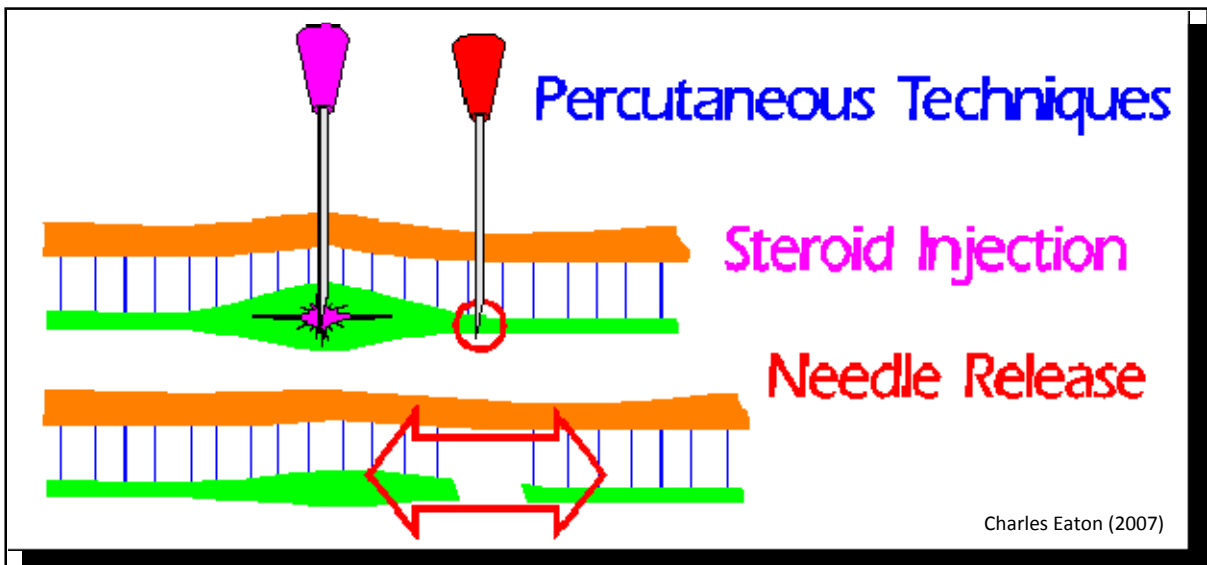


NEEDLE APONEUROTOMY (NA) : FREQUENTLY ASKED QUESTIONS

- **How do I know that I have Dupuytren's and not some other problem?** Dupuytren's is diagnosed by the appearance of the skin of the hand. Before travelling far for treatment, it is a good idea to have the diagnosis confirmed by a local health care professional. Dupuytren's is a very specific type of problem. It is *not* arthritis, tendinitis, trigger finger, carpal tunnel syndrome, or other conditions resulting in stiff or bent fingers, so if there is any question about the diagnosis, have it checked out in person by a health care professional. You can find information about common hand conditions such as Dupuytren's contracture at the American Society for Surgery of the Hand.
http://www.assh.org/AM/Template.cfm?Section=Hand_Conditions
- **What is Needle Aponeurotomy?**
 - It is a procedure performed in a doctor's office using local anesthesia to help straighten fingers bent by Dupuytren's contracture. In Dupuytren's disease, a layer of tissue just under the skin of the palm becomes hard and shrinks. Dupuytren's may result in a lengthwise tightness beneath the skin of the palm which keeps the fingers from straightening, called a "cord". With needle aponeurotomy, a physician lengthens a tight cord by cutting it beneath the skin with a small needle, usually at several points along the line of tightness.
 - Technically speaking, needle aponeurotomy is a type of procedure referred to as a *percutaneous fasciotomy*. "Percutaneous" means going through the skin with the smallest hole possible, and "fasciotomy" means cutting fascia, which is the layer under the skin affected by Dupuytren's disease.
 - Needles may be used percutaneously to cut the tight fascia, inject nodules with cortisone, or both:



- **What causes Dupuytren's?** It is inherited, but doesn't show up in every generation. With Dupuytren's, a tissue layer just under the skin of the palm shrinks and keeps on shrinking, which bends the fingers.
- **They say it's hereditary but no one in my family has Dupuytren's. Why do I have it?** It can skip many generations. About half of people with Dupuytren's know of a close relative with it, but half don't know anyone in their family with it.
- **Does an injury cause Dupuytren's?** Sometimes an injury of the hand or wrist, like a cut or a broken bone can activate Dupuytren's earlier than it otherwise would have, but the main reason that people get Dupuytren's is due to genetics.
- **My doctor says it isn't painful, so why do I have pain?** Some people have tenderness, burning or itching in the lumpy areas when the Dupuytren's is actively progressing. Most don't. There are also other painful hand problems which are more common than Dupuytren's, like arthritis and tendinitis.

- **Will my fingers be straight/perfect after the NA?** This depends on the severity of your Dupuytren's contracture. Dr Gates makes an estimation when he looks at your hands or pictures of your hands, but it's impossible to predict with complete accuracy. The goal of the NA procedure is to get your fingers noticeably straighter without the risks and the ordeal of traditional open surgery.
- **Why do you say you can't get the PIP joint straight? Why is there only about a 50% improvement? Can they get it straighter if I have the regular surgery?** The PIP joint is one of the unsolved problems in hand surgery. The way the joint is shaped on the inside makes it prone to getting stuck with a bend in it when anything happens to it. You can wind up with a permanent bend in this joint from a sprain, from finger tendinitis, or from having surgery on the joint itself. When the joint is bent close to ninety degrees, surgery may give a better improvement than NA, but it is pretty unpredictable.
- **Will the Dupuytren's come back after I have this procedure?** Recurrence is one of the big problems with Dupuytren's. I can only give you a statistical answer. By three years after NA about half of people will have a return of a bend enough to think about having another release. After open surgery, half will recur by five years, so on the average open surgery lasts longer, but the recovery time and the risk of complications are about ten times worse with open surgery.
- **Why does it come back?** Dupuytren's is a problem with the overall body chemistry which then affects the hands. Surgery works on the changes that result from Dupuytren's but doesn't take away the underlying reason.
- **How much time do I have before it comes back?** It depends on your body chemistry. Dupuytren's comes back more quickly in patients who have related conditions like Ledderhose disease or knuckle pads and in people who have close family members with Dupuytren's. Beyond that, I can only give you a statistical answer. On the average, about half of people will have a return of a bend enough to think about having another release three years after NA.
- **How many NA procedures can I have?** There's not an absolute maximum. Dr. Gates uses these guidelines: If the last release was successful for the patient, if it lasted at least a year, if the skin is still soft or has some give left and if there is a well defined cord which can be felt with the fingertip, it's probably worth another try. If not, it might be time to start thinking about traditional open surgery.
- **How long is the recovery time?** One day of icing and elevating the hand, one full week before golf, tennis, weight training or strenuous use of the hand.
- **How long do I have to stay in town? Why don't you have follow-up post NA office visits?** You don't have to stay in town. The Paris group demonstrated that traditional aftercare checkups are not necessary, and that has been Dr. Gates' experience.
- **How long do I have to be disabled or off work?** Usually two days for sedentary or keyboard work, one week for more strenuous work.
- **Will you sign a disability form for me to be off work?** Yes, but for most cases this will be for a week after the procedure. If you are considering long term disability from the Dupuytren's itself, a local physician should take care of your forms.
- **After I have the NA procedure, will I be able to drive?** Most patients are able to drive immediately after NA. If you are concerned that you won't be able to manage driving, you should make alternate arrangements for the two days following the procedure.
- **Can I fly after having the NA procedure?** You can fly the same day as NA as a passenger in a plane, but should wait for a week if you are the pilot.
- **After the procedure, can I use my hands?** You will need to try to keep your hand pointing up as much as you can the day of the procedure. You should be able to eat, get dressed and go to the bathroom without assistance the day of the procedure. It's best to avoid more strenuous activities for one week after NA.
- **After the procedure, can I lift things?** For one week, you have to avoid gripping things against the skin where the needles were used. This means that you should only grip or lift lighter objects with your fingertips for the first week after NA.
- **How soon can I play golf / tennis / swim?** You can get your hand wet in the shower and wash your hands the day after, but you shouldn't go swimming or submerge your hand underwater for at least two days after the procedure. You can play golf and tennis one week after the procedure.

- **How can I use my hands?** Right after the procedure, you will have little round bandaids on the areas where the needles were used. Usually, the bandaids can be taken off and left off the same day. Right after the procedure, you'll have some numbness in your fingers, which usually wears off by the next morning. You should be able to eat, get dressed and go to the bathroom without assistance the day of the procedure. It's best to avoid more strenuous activities such as golf, tennis, and weightlifting for 1 week after NA.
- **Do I have to keep the hand bandaged?** Usually, all bandaids are taken off and left off the day of the procedure. Wet bandaids should be removed. Sometimes the skin will crack like a paper cut in the palm and will weep for a few days like a scraped knee. If your skin cracks, you should keep bandaids on the areas until the areas dry up and heal..
- **How long will my hand be sore?** Mild soreness may last a day or two. Soreness may last longer if there is much work done on the PIP joints.
- **How long will my hand be numb?** Usually for several hours and sometimes until the next morning.
- **How long should my hand be swollen?** If you follow instructions with ice and elevation, you should have very little swelling. If swelling does occur, it usually lasts less than a week.
- **Won't I need pain pills?** If you follow instructions with ice and elevation, you should have very little pain, if you have any at all. Tylenol, Advil or Aleve should be strong enough for this. Narcotic pain medicines are rarely prescribed for this, and only following the release of very severe contractures involving three or more fingers. You cannot drive while taking narcotic pain medication.
- **When can I shower?** The next morning.
- **How long will I need physical therapy on my hand?** Most people don't need any formal hand therapy after needle release. Sometimes, depending on your particular situation, it may be helpful for you to wear a splint or brace at night for a few months after release. Usually, this type of splint needs to be custom made by a hand therapist after the procedure. Dr. Gates has a Certified Hand Therapist on staff.
- **Why won't you do NA on both hands the same day?** It's like the difference between having a patch over one eye and a patch over both eyes. Experience has shown that doing releases on both hands on the same day greatly increases the chances of flaring up a lot of inflammation or even infection. NA has a low complication rate if everything is care is taken to prevent unnecessary complications.
- **How does the splint help?** Splints are worn at night to keep you from sleeping with your fingers bent into a fist. They gently open the fingers during the healing process. Splints need to be worn loosely and comfortably, or they may actually aggravate the Dupuytren's.
- **Should I take / not take chondroitin/glucosamine** There is no real data on this so far, but because of individual reports possibly linking chondroitin/glucosamine with Dupuytren's, a practical recommendation is that if you have Dupuytren's and feel through your own experience that this supplement is helping joint pain, then keep taking it. If you can't tell whether or not chondroitin is helping you, don't take it or don't start taking it.
- **How can I keep it from progressing or recurring?** That's the holy grail of Dupuytren's, and people have been trying to find a medical treatment for Dupuytren's since the time of Dupuytren, 200 years ago. There is no medicine, salve, exercise, therapy, nutritional supplement or dietary change which has been shown to help Dupuytren's. One thing to avoid is forcing the fingers back, stretching them straight: that may actually provoke more contracture.
- **What are the limitations of Needle Aponeurotomy?**
 - NA is **not** a cure-all for bent fingers. It is one of several techniques to straighten fingers bent by Dupuytren's disease, applicable when there are string-like cords which can be felt beneath skin which is still somewhat soft.
 - NA is **not** appropriate for contractures due to *other problems*, such as contractures due to prior injury, chronic tendinitis ("trigger finger"), or medical problems producing generalized stiffness, such as reflex sympathetic dystrophy, scleroderma, or diabetic stiff hand syndrome. This is why it may be important to have a physician confirm that the primary problem producing contractures is Dupuytren's before making plans for NA with Dr. Gates.
 - NA is usually **not** appropriate for hands which are persistently *painful, tender, or swollen*.
 - NA may not be technically possible when the skin has lost its stretchiness or if:

- The skin itself has *shrunk* or hardened too much.
- There are tight lengthwise *scars* from previous surgery.
- There are *skin grafts* in the middle of the contracted area.
- The skin over the cord is *hard, scarred, or nodular* (lumpy).
- **Nodules** are hard lumps in the palm where the Dupuytren's process is the most active. If a cord is like a string, a nodule is like a bead on that string. Nodules are unfavorable areas for NA, and if nodules involve long areas, it may not be possible to perform NA. However, nodules usually shrink and soften *after a cortisone shot*, and it may be possible to treat the area with cortisone shots and return in a few months to perform NA.
- **PIP contractures** are difficult problems for *both* traditional surgery and NA, and *partial* rather than complete improvement is to be expected. On the average, PIP contractures over 45 degrees are improved about 50 percent with either NA or traditional surgery.
- **Severe contractures** or **combined contractures** of *both* the MCP and PIP joints may require *two sessions, several months apart*, in order to gain the maximum benefit. Two sessions are usually required for Stage III and IV contractures. Remember, the goal of NA is *improvement without a long recovery period*. Severe PIP joint contractures and severe combined MCP and PIP contractures are rarely restored to normal, even with traditional surgery.
- **Secondary problems** may limit the usefulness of NA. When a finger joint has been too bent too far too long, the joint itself may become stuck, even after the Dupuytren's cord has been released. This is most common with PIP joint contractures. Also, the tendons which run on the back of the finger which straighten the PIP and MCP joints may stretch out or slide over to the side of the knuckle, no longer able to pull the knuckle straight. If this happens, the contracture will likely recur after NA, and traditional *tendon reconstruction surgery* should be considered.
- **When should I consider having NA? When is the earliest it can be done?** Needle release should be considered when there is a contracture which prevents the fingers from stretching back. A release can only be done if there is a contracture which limits joint movement: Needle aponeurotomy can't only be done effectively if the PIP and MCP joints can each be straightened fully at the same time. Even if the tightness seems to be progressing, there must be some contracture to try NA.
- **What happens to the cord after it has been cut?** The cord is softened and digested by the body's normal enzymes, and heals in a lengthened state. The cord is a normal structural layer which has become wider and shorter from the effects of Dupuytren's. It is not a tumor - it does not have to be removed, and when it is returned to it's proper length, it becomes hard to feel - just like it was before Dupuytren's affected it.
- **If the nerve is wrapped around a cord, how can the cord be cut without cutting the nerve?** Very carefully. At Dr. Gates' office, the procedure is performed with local anesthetic only in the skin itself. Deep to the skin, nothing has much feeling, except the nerve. If the needle gets close to the nerve, you will feel an electrical tingle, which tells the doctor to reorient and stay away. As long as you can feel in the fingertip, it's safe to keep working. The finger may be temporarily numb at the end of the procedure from additional anesthetic or stretching the nerve, but statistically, permanent nerve damage is less likely than for traditional surgery.
- **What happens to the nodules?** Nodules soften up from two effects. They soften after the tension has been relieved from cutting cords attached to them. They also soften after being injected with a small dose of a long lasting cortisone. The softening and flattening takes place over month or two after the procedure.
- **What about my knuckle pads?** Knuckle pads (on the back of the PIP joints) can be injected with cortisone, which will make them soften and flatten some. However, the skin may become thin from the cortisone, so it's best to hold off injecting unless they are big and hard. Knuckle pads frequently go away after a few years, can come back after removal, and are not routinely operated on by Dr. Gates.
- **Can I have the NA procedure performed the same day as my initial evaluation?** Yes – this is sometimes done.
- **I have a severe case - is NA still appropriate?** NA is always an option - if...
 - **If:** there is a lengthwise cord which can be felt beneath the skin,

- **And If:** The skin is not too scarred, shrunk or hardened - the skin has to have some "give" or stretch left.
- **Two NA sessions**, three months apart, may be needed to achieve the most benefit in severe cases.
- **When is NA NOT an option? What are the limitations of NA?** See [above](#).
- **What if NA is not possible?** Surgery is always an option. If the disease is beyond the point of NA, it is usually bad enough to require a skin graft or joint fusion - traditional surgical options.
- **I am diabetic - Is NA safe?** Yes, as long as your diabetes is under good medical control.
- **I am on blood thinners - is NA safe?** The risk of bleeding complications following NA is small. NA *can* be performed even if you are fully anticoagulated, as long as you are able to keep your hand constantly elevated (hand pointing up) the day of and the day following the procedure. However, ideally, you should be off blood thinners (aspirin, plavix, etc.) before any elective procedure, but only do this under the direction of the doctor who has prescribed these medicines. Blood thinners *do* increase the risk of excessive bruising and complications of bleeding following *any* procedure, including NA.
- **Can I qualify for disability during my recovery from NA?** No, not from the NA procedure itself. If you wish to receive disability benefits, all arrangements must be made by your primary doctor, if they believe that you qualify for disability based solely on your current condition.
- **Is the procedure painful?** Not terribly. The shots feel about as bad as a wasp sting, but don't last as long. Anxiety and anticipation are usually bigger problems than pain. Slow deep breathing and other relaxation techniques are very helpful. Narcotic pain medicines are not needed during or after NA.
- **Can I have both hands done on the same day?** No, this is usually not a good idea - better to stage the hands at least one day apart.
- **Why aren't more doctors doing needle aponeurotomy?** Many doctors in the US are simply not aware of the benefits of NA. Also, there is a very strong surgical tradition in the US of *fasciectomy* (removing the abnormal tissue) instead of *fasciotomy* (cutting the tight cord). It's just a matter of time before this changes - there's no conspiracy, no hidden agendas. Britain's National Health Service has reviewed the procedure and has published favorable policy statements regarding this - see <http://www.nice.org.uk/search.aspx?search-mode=simple&ss=dupuytren>.
- **What's the difference between needle aponeurotomy and other procedures?**
Here's a comparison:

	Aponeurotomy (NA)	Fasciectomy (Traditional Dupuytren's Surgery)
Setting	Office - one day	Outpatient Surgery
Recovery (one hand)	2 - 7 days	2 - 3 months
Recovery (both hands)	4 - 7 days	4 - 6 months
Fees	Physician	Physician, Facility, Anesthesia
Therapy	Uncommon	Usual, 3 times a week, 4-12 weeks
Splinting	For PIP or multiple releases, nightly for 3 months.	For most releases, nightly for 3 months.
Repeatability / touch up	Any time, straightforward	Wait at least 3 months, difficult.

- **I've already had surgery for Dupuytren's. Can I still have a needle procedure?** Yes - *if* you have developed cords beneath fairly normal skin. However, needle aponeurotomy may not be possible after surgery if you have *tight or hard skin, tight scars*, or if *no remaining cord* can be felt. In these situations, traditional surgery may be the best solution, possibly with a skin graft.
- **What can I expect after the procedure?**
 - **Bandage?** If your skin is in good condition and you have no "skin tear" from the procedure, you may simply need dot band aids on your palm for a day at the needle sites. Otherwise, you may be wrapped in a gauze bandage for 2 or 3 days. If you have a large skin tear, which is uncommon, you may need to change a light bandage on your palm for 2 weeks.
 - **Splint?** If you have PIP contractures or have multiple fingers released, you may benefit from wearing a splint while sleeping for 3 months. Usually, a custom splint can be made by a hand therapist on site on the day of the procedure. Otherwise, you may be given a prescription for a splint to be fabricated within the next few days.
 - **Therapy?** Unlike open surgery, scheduled sessions of hand therapy are *not* routinely needed after needle aponeurotomy.
 - **Activity?** For the day of the procedure, it's best to try to keep your hand elevated (pointing up above the level of your heart) as much as possible and to apply a cold pack to your hand for 10 minutes an hour (ice, gel pack, holding a cold beverage, etc.). Your fingers may be numb for a few hours, but even with this, you should be able to eat, change clothing, go to the restroom and drive a car without assistance immediately after the procedure. You may be sore and bruised for a week, so plan to take it easy for comfort's sake - hold off on sports and strenuous activities at least 1 week after the procedure.
 - **Medications?** You may be given a single dose of antiinflammatory medicine on the day of the procedure, or you may bring your own to take. No narcotic pain medicines are needed. If you are quite anxious about the procedure, you may wish to speak with your local physician about prescribing an anti-anxiety medication to take on the day of the procedure.
- **How soon can I use my hand after a needle aponeurotomy?** See "[Activity](#)", just above.
- **Can my feet be treated as well?** Not currently.
- **How do I schedule an appointment?** Call Dr. Gates' office at 239-263-4511.
- **How far in advance do I need to make an appointment?** At least one month.
- **Is this procedure covered by insurance?** Most plans cover NA, but you should contact your insurance company to check your plan coverage.
- **What do I need to tell my insurance company?** Your insurance company will want to know these insurance codes
 - ICD Code **728.6** CPT Code **26040** (Percutaneous Fasciotomy - one finger)
 - ICD Code **728.79** CPT Code **20550** (Steroid injection Dupuytren's nodule) and occasionally
 - ICD Code **715.14** CPT **20600** (Steroid injection of finger joint) and even less commonly
 - ICD Code **736.21** CPT **26060** (Tendon release for boutonniere deformity).