

Percutaneous Needle Fasciotomy

- Percutaneous needle fasciotomy (PNF) = needle aponeurotomy (NA)
- Weakening the cord by using a needle or thin blade under the skin, so the cord can be snapped
- Done under local anaesthetic
- Various techniques are used, it is not easy to learn.

Needle Aponeurotomy is the same as Percutaneous Needle Fasciotomy, Needle release and many more variations.

And not only are there many different names, but the technique can also vary, each surgeon may well have his or her own way of performing the procedure, administering the anaesthetic, holding the needle (especially the angle under which they work).

Some only use PNF on MCP contractures, where the cord is in the palm, others also on PIP contractures (the first joint in the finger), where the cord can have a nerve and a bloodvessel crossing over it.

It is done under the skin, so the skin is not cut. Most surgeons use the bevel (sharp sides) of a needle, a few will use a very thin blade.

PNF

- Henry Cline suggested this technique in 1787
- It was popularised by French rheumatologist Lermusiaux in the 1970's

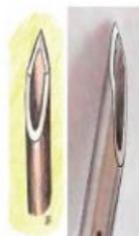


Fig. 9
Needles, with their double sharp bevels.

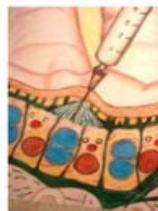


Fig. 10
Section of the cord obtained by to-and-fro movements of the needle.

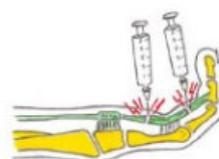


Fig. 11
Cord section on two points.

The technique was first described by Henry Kline in 1787, but it took a French Rheumatologist, Dr Lermusiaux in the 1970's to popularise the technique. It is not something everyone can do, the surgeon needs really good knowledge of the anatomy (especially where nerves and blood vessels may go) and three dimensional insight. The surgeon will be cutting something he or she can't see, only feel, and that is not for the faint hearted. If the patient has had prior surgery the normal anatomy will have changed, and it may not be safe to do PNF anymore.

The technique was brought to the USA by Dr Charlie Eaton in 2003, after attending a training course in France. So it is still a relatively new technique for many.

The procedure is applying local anaesthetic then puncturing the cord until it is weak enough to snap. Some cords need doing in several places.

Advantages

- Less invasive than full surgery
- No stitches afterwards (if a skin tear occurs this normally heals by itself)
- Fast or immediate recovery and use of the hand
- Less traumatic than surgery, less chance of causing a disease flare up we hope

It is less invasive than fasciectomy surgery, no sutures are needed and less traumatic. Patients can use their hand directly.

If a skin tear occurs that usually heals in a week or so.

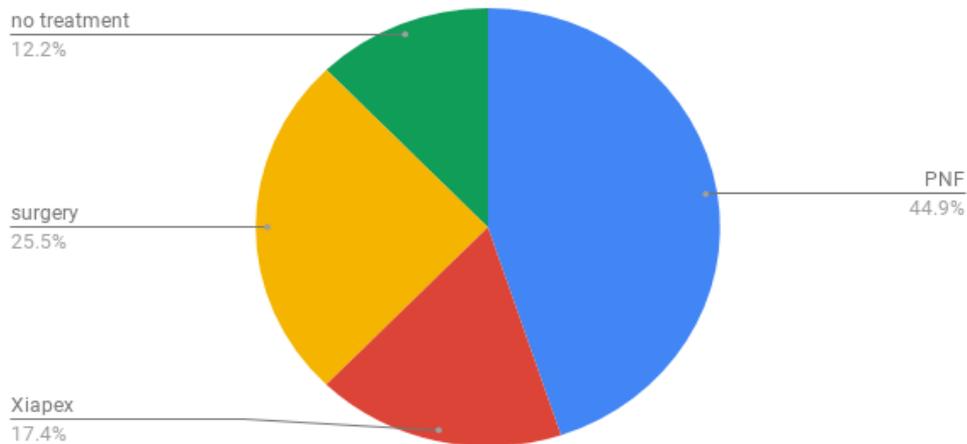
The chance of activating the disease through trauma is likely less than with surgery.

Patients tend to like PNF for many reasons. In our survey 98 patients replied, 45% would want PNF as their first choice, 17.5% would opt for collagenase, 25.5% for surgery and 12 % would not want any treatment.

You need to remember here that the patients we asked are a pro-active group who have already investigated all treatment options. Many don't know there are different options other than surgery if the contracture is bad enough.

Those who decided on No treatment could change their mind as the contracture progresses and becomes bothersome.

I you had a contracture what would be your treatment of choice?



The reasons for preferring PNF over other treatments were as follows:

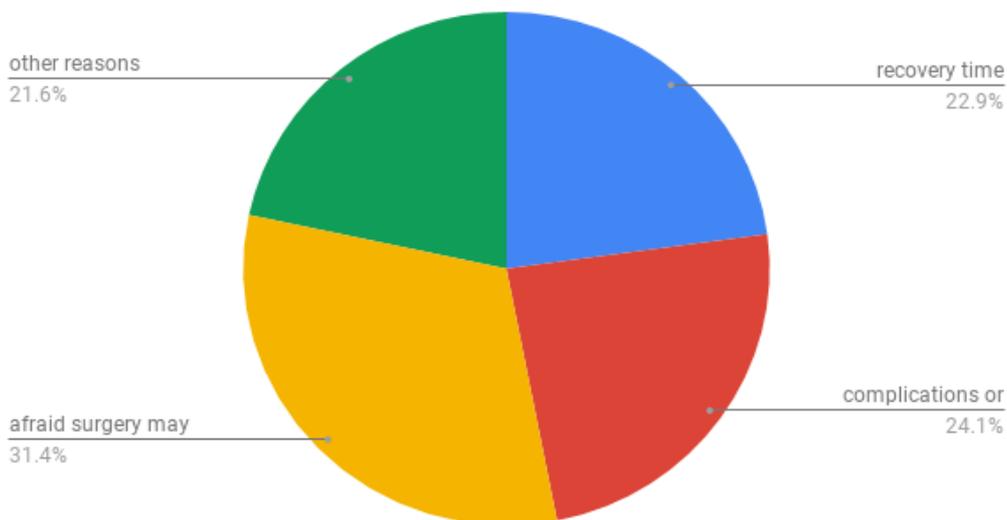
Shorter recovery time meaning less time off work or needing help with daily tasks- 23%

Less risk of complications and less medication needed after (pain relief!) 24%

Afraid that surgery might activate the disease- 31%

Other reasons 22%, which can be anything from not wanting a general anaesthetic, an aversion to any form of hospital treatment or surgery, to a history of CRPS or bad scarring.

If choosing PNF what are the reasons?

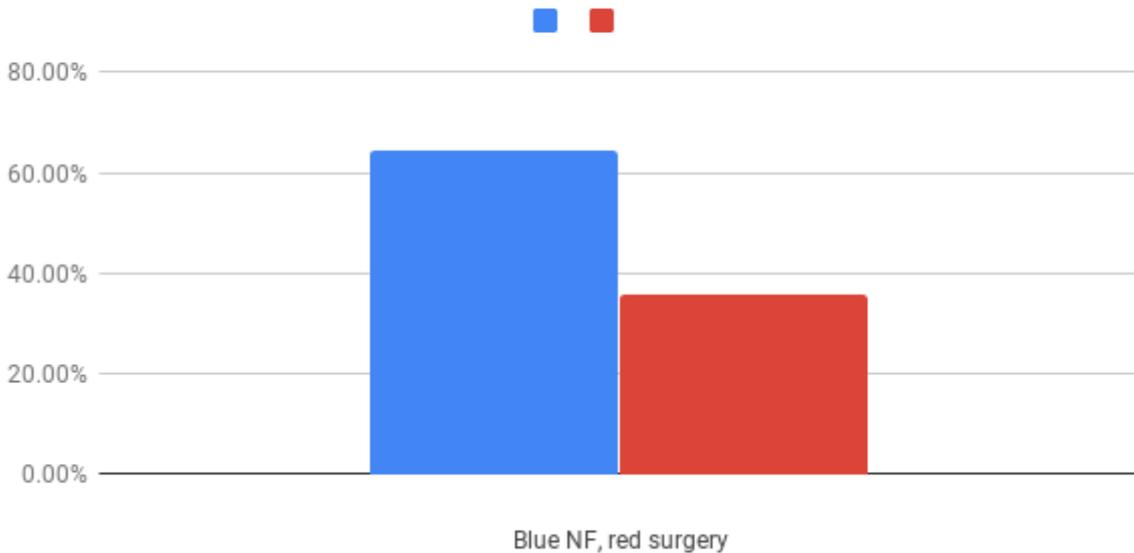


However none of the diseased tissue is removed, and recurrence of the contracture is a lot faster than with surgery.

For many patients that is not important in their choice of treatment. Out of 98 patients, just over 64% would choose PNF even if the results don't last as long as surgery.

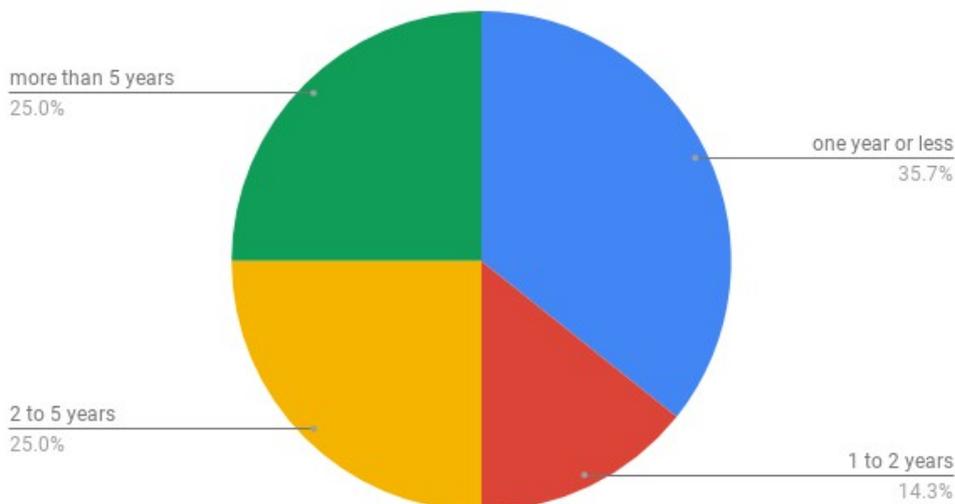
This is self explanatory, patients like a fast recovery, minimal scarring and getting on with their lives. Minimally invasive treatments are very popular at the moment for many conditions.

Knowing PNF results do not last as long as surgery results, which would you prefer?



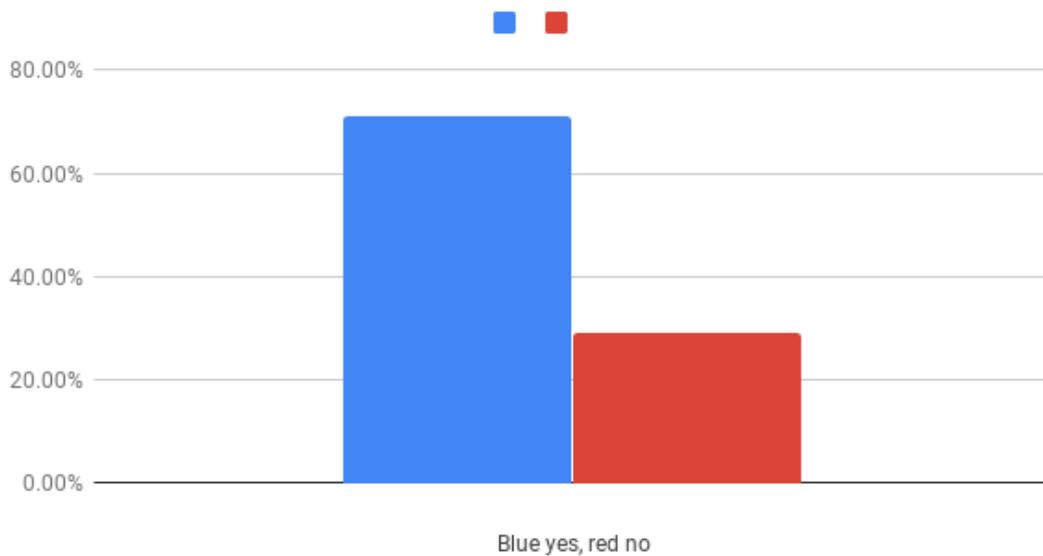
In the same survey, when asked how long any previous PNF treatment had lasted, out of 45 patients 35.7% reported the contracture came back within a year, 14.3% within 2 years, 25% within 2-5 years and only for the last 25% did it stay away longer than 5 years. Fast recurrence is likely as no tissue is removed, so the cord might well reform (our Dupuytren's tissue can be very stubborn) Splinting is controversial but some believe it helps prevent recurrence. Most patients would splint at night to hold the fingers straight and exercise during the day. The procedure can be repeated in many cases.

If you've had PNF already how long did the result last?



So if a recurrence happens, what would patients want? Our survey indicated that 71% would want the same treatment again. PNF can be repeated in most cases, but some surgeons will advise fasciectomy (surgery) if the contracture comes back quickly as they may feel that is a better option to get longer term relief.

If you've had PNF already, would it be your first choice again?



The NHS and PNF

- NICE England has issued full guidance (IPG43 2004) saying 'current evidence appears adequate to support the procedure'
- NICE guidance is not binding for CCG's (Clinical Commissioning Groups) in England
- It is endorsed by Healthcare Improvement Scotland
- Wales?

In the UK, we have our brilliant NHS, where we get treated for any medical condition without racking up big bills. However the NHS has limited funds, and many times a CCG (Clinical Commissioning Groups) has to make a choice what treatment they can offer and fund, and at what stage of the disease. NICE is the organisation that decides what treatment a CCG is allowed to offer, but the CCG does not have to follow recommendations. This means not every patient gets offered the same treatment.

NICE has issued full guidance for PNF (Interventional Procedures Guidance 43, from 2004), saying that 'current evidence appears adequate to support the use of the procedure'. This recommendation is endorsed by Healthcare Improvement Scotland.

We are not sure about the situation in Wales or Northern Ireland.

The NHS and PNF

- Most CCG's support PNF for 'moderate to severe disease' but only 'if (the surgeon is) suitably trained'
- Some CCG's state PNF is 'not routinely funded' (West, Mid and South Susses, Bedfordshire, Hartfordshire)
- This results in a postcode lottery
- If you want PNF tell your GP before referral!
- Waiting lists can be closed due to high demand

However looking at English CCG guidelines, most say it is supported for 'moderate to severe disease' but only 'if appropriately trained' (we presume they mean the surgeon has to be appropriately trained), and a few CCG's state that PNF is NOT routinely funded (such as West, Mid and South Sussex, Bedfordshire and Hartfordshire)

This means patients in different areas get offered different treatment, and not all patients know there is a choice of treatments or what to ask for. Patients may need to discuss with their GP what treatment they want and if they can be referred to someone who is 'appropriately trained', but how do you know that?

If a surgeon feels that PNF causes unacceptably fast recurrence, he or she does not have to mention or offer it, even if 'appropriately trained'. A surgeon only needs to discuss those treatments that he or she deems suitable for the patient.

Another problem can be that a centre's waiting list gets so long that they close it, so even if you've found a good doctor, got referred and the CCG would be willing to pay for it, PNF may not be possible.

So getting PNF on the NHS is not always easy. When you see a surgeon, and get told 'this requires surgery', it can be difficult to even ask if there is another option, You may not know there could be, or you feel it is not your place to question a specialist's opinion. And if you ask, you may get told that for the contracture you have this is the best solution. And let's be honest, in most cases that will be true, as our hand surgeons are very good! But every now and then it is possible that a surgeon feels PNF is not an option, and one more experienced with the procedure would offer it.

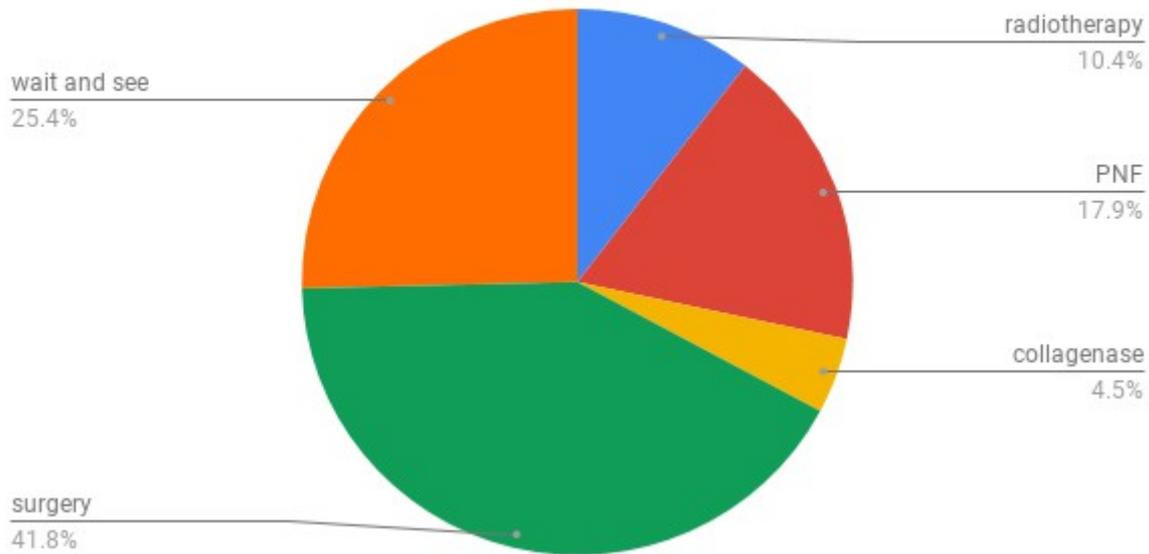
Getting a second opinion can be awkward as well, so if you really want one type procedure it may be best to find out in advance who to see and where you want to go, and ask your GP for referral to that particular surgeon.

What treatment do people get offered on the NHS? We asked what they were advised when they presented with a contracture. Out of 90 patients with contracture who answered our survey, only 18% were offered PNF. 10% were offered radiotherapy (which may not be suitable any more by the contracture stage), 4.5% collagenase injections (a disappointingly low percentage, and strange compared to radiotherapy) 42% surgery and 25 % were not offered any treatment, just wait and see,

come back if it gets worse.

The 'come back if it gets worse' category is a big problem as patients feel rejected, as if their problem is not significant enough for the NHS. If only it could be 'come back in 6-12 months and let's see if it has progressed by then!' That would make the patient feel supported instead of dismissed.

Which treatment have you been offered on the NHS for a contracture?



Referral

- Many CCG's demand referral to an MSK unit first (musculoskeletal) to assess if consultant-led treatment is needed (which it is for Dupuytren's).
- NHS choice framework allows referral outside the area (but the CCG has to agree to pay for it)
- If your wait to see a consultant is over 18 weeks you can ask for referral elsewhere
- You can go private- some patients even go to Paris, France!

Referral by a GP many times now means patients first have to go to an MSK assessment session (musculoskeletal- physiotherapy unit), to be assessed whether they need a consultant to look at them or if simply physiotherapy can help. Of course for a Dupuytren's Contracture physiotherapy is not suitable, so this is a waste of time and money, but those are the rules.

So if you get referred, then what? The best would be if you already know what treatment you want and who in your area offers it, and ask your GP to refer you to that person. Under the NHS Choice Framework you can ask for referral outside the area as well, but some CCG's may not be easily persuaded to fund that. You may need an 'individual funding request' filled in by your doctor, to get treatment that is not routinely funded by the CCG in your area.

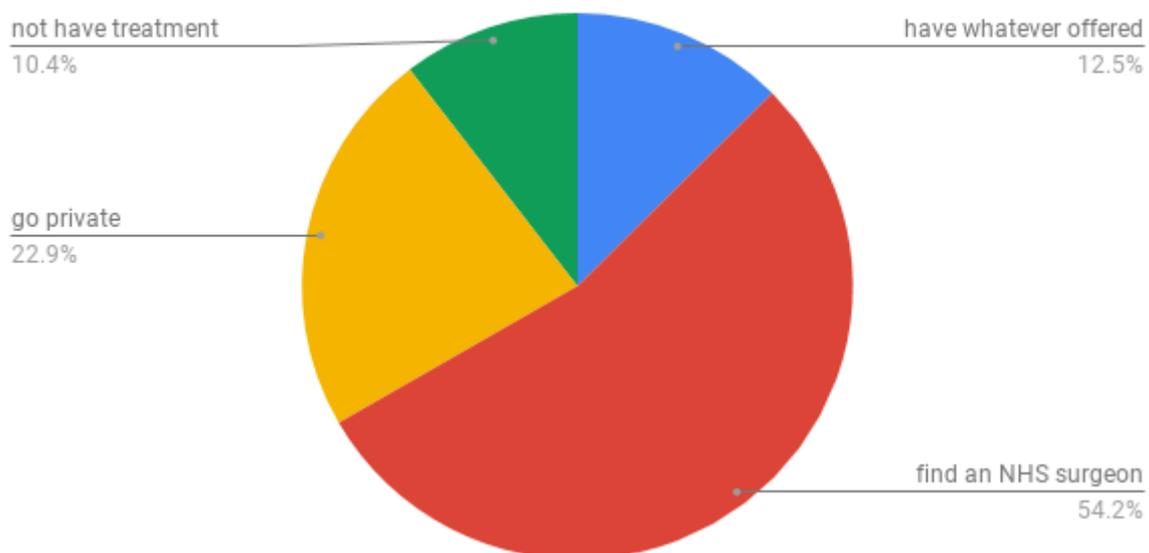
If your wait to see a consultant is longer than 18 weeks, you are entitled to go elsewhere (but you may have to start the wait again). There is no limit for time waiting till the actual treatment.

Or you could decide to go private, if you have insurance they might pay, otherwise you will be out of pocket yourself. Some patients even take a short break to France, usually Paris, and have the treatment done there as outpatient in a doctors office.

In our survey, out of 96 respondents, only 12.5% patients would decide to have the treatment offered if that was not what they wanted (which is likely to mean surgery rather than PNF). 54% would try find an NHS surgeon to do the procedure for them, 23% would go private and 10% would decide not to have any treatment.

This means that half of patients would cost the NHS extra by asking for a second opinion from a different consultant, and ten percent will go away and try to ignore their problem, risking them only coming back when it has gone so bad that amputation may be needed (I have heard of a few, due to long waiting lists or being told to wait-and-see as well)

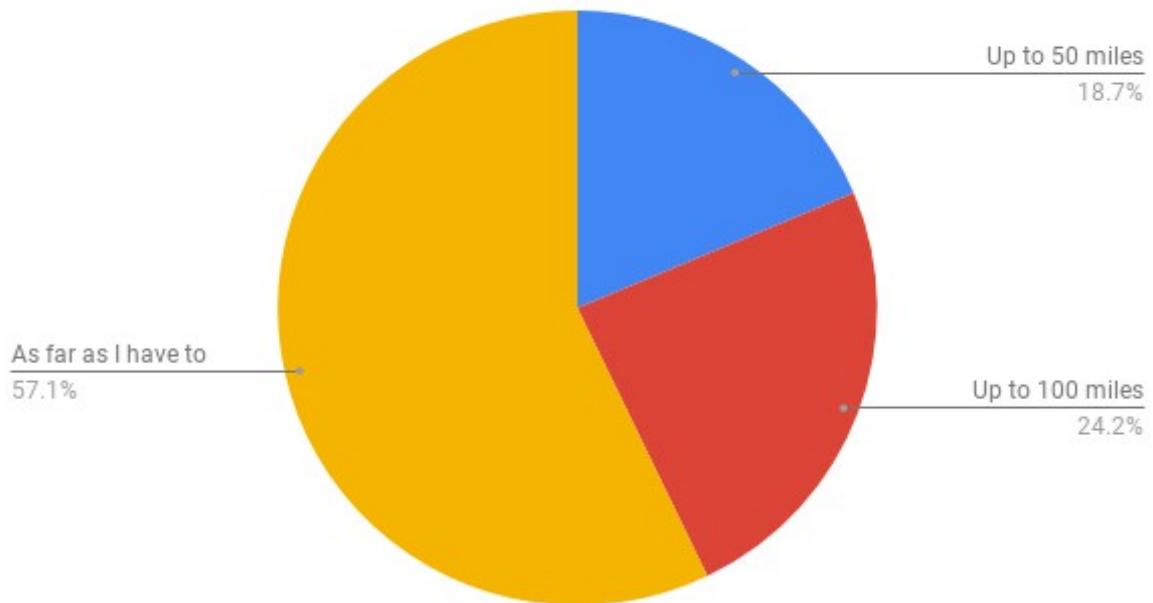
If the treatment you want is not offered by your NHS doctor, would you:



Finally when asked how far they would be willing to travel, out of 91 answers, nobody said less than 15 miles, 19% said up to 50 miles, 24% up to 100 miles and 57% 'as far as I have to'.

Patients are willing to travel, and the Paris option is very tempting for some! A nice midweek break, an hour or two in a Rheumatologists office and straight fingers when you come home. This happens more often than we would suspect.

How far would you go for your chosen treatment?



And that is the end, if anyone wants the text I can email it them, and I will put the pdf with this talk on our website and our Facebook group.

Any questions?