

Author's preferred treatment

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This section has described the various options for treating Dupuytren's Disease. Every case is different. Moreover every surgeon has a different training, a different talent and a different philosophy. So it is not possible to provide a cook book recipe for all cases of DD – the treatment must be individualised.

Certain points should be considered:

Risk

The treatment of DD necessarily carries a risk of complications (Table 1).

Table 1: Risk of complications depending on method of treatment

Complication	Needle fasciotomy	Collagenase	Fasciectomy	Skin graft
Nerve damage	+	-	+++	+++
Infection	-	-	+	+
Stiffness	-	-	++	++
Wound failure/split	++	+++	+	+
Blood blister	+	++	-	-
Recovery time	+	+	+++	++
Tendon rupture	+	+	-	-
Recurrence	++++	+++	+++	+

When calculating risk, one must balance the frequency of that risk with the severity of that risk (Table 2).



Severity Likelihood	No Safety Effect	Minor	Major	Hazardous	Catastrophic
Frequent	Low Risk	Medium Risk	High Risk	High Risk	High Risk
Probable	Low Risk	Medium Risk	High Risk	High Risk	High Risk
Remote	Low Risk	Low Risk	Medium Risk	High Risk	High Risk
Extremely Remote	Low Risk	Low Risk	Low Risk	Medium Risk	High Risk
Extremely Improbable	Low Risk	Low Risk	Low Risk	Low Risk	Medium Risk

HIGH RISK
MEDIUM RISK
LOW RISK

Table 2: Risk matrix

Thus with the treatment of DD, a risk such as an allergic reaction to CCH is very rare but potentially catastrophic; a skin tear with PNF is very common but of no clinical consequence (Table 3). So patients must be carefully advised about the potential risks of their treatment and they must provide their written consent

Consequence

	TRIVIAL	QUITE SERIOUS	V SERIOUS
HIGH	Skin tear Blood blister Bruising		
MEDIUM	Axillary pain	Wound failure	Nerve Damage Nerve Damage Stiffness Stiffness
LOW		Infection	
V LOW			Tendon Rupture Allergic reaction

Likelihood

Collagenase
 PNF
 Fasciectomy +/- graft

Table 3

Recurrence

DD has a modest (fasciectomy), high (CCH) or very high (PNF) tendency to recur; However, a full thickness skin graft has the lowest chance of recurrence. Only if the cords remain suitable (i.e. discrete), re-treatment after PNF or CCH with PNF or CCH is usually satisfactory combining the innate advantages of simplicity, prompt recovery and low complications. Surgery after CCH is usual no more challenging than primary surgery.

Whilst fasciectomy (probably) has a lower recurrence rate than PNF or CCH, if recurrence does occur then a more difficult operation is needed – surgery must deal with not only the recurrent disease but also the scarring from the previous procedures.

Cost

The modern surgeon is obliged to take responsibility for the costs of healthcare. In financially strained times, if we spend too much money on one treatment then there will be not enough money for someone else's treatment. Before even offering treatment for DD, one must really consider whether treatment is justified at all. For many patients DD is nothing more than a cosmetic blemish of no consequence. Just because we have a treatment does not necessarily mean that the healthcare system has to fund it and deprive the funds that could be used for a condition of much greater clinical relevance.

So the cost can, in my opinion, only be justified if the patient has, or soon will have, significant difficulties *and* if the risks of treatment are fully accepted (because complications will add to the cost and also expose the system to medicolegal costs as well ...)

The cost analysis is very complex- the quick recovery from CCH with regards to working and paying tax again may justify the apparent expense of the drug; the slightly greater cost of skin grafting (slightly longer surgery, slightly more post-operative attention to therapy and dressings) may be justified by not having to pay the cost of a second fasciectomy.

My preferred approach

So in my opinion, treatment should not be offered for cosmetic reasons and trivial functional problems.

For *diffuse uncomfortable palmar disease*, I refer for radiotherapy. For *palmar nodules*, excision under local anaesthetic is preferred. For *discrete cords* in older, lower demand patients, PNF is cheap and rewarding. For *discrete cords* across one or two joints and especially *natatory cords*, CCH is currently proving to be reliable and effective. I find that properly consented patients whose cords are equally suitable for PNF, CCH or fasciectomy, almost never prefer surgery.

In those *with multiple digits* and more *diffuse disease*, and especially those with a *diathesis*, I usually advise fasciectomy with full thickness grafting. This is because dermofasciectomy with skin graft is not really much more difficult technically than fasciectomy, nor is the post-operative recovery particular more onerous. By making the small effort to do this slightly bigger procedure first, the surgeon will minimise the chance of that more difficult second operation which would be needed for the proportion who inevitably recur after simple fasciectomy.

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