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of Ontario**

*Committed to improving  
the lives of people  
living with lymphedema*

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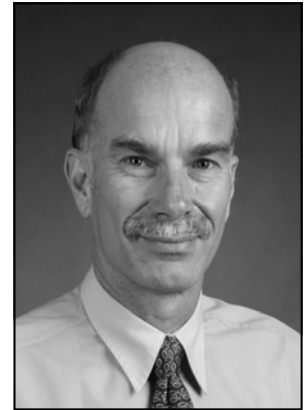
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# Ask the Expert

## Edema causing medications

By Neil Piller

**What are some of the edema causing medications that lymphedema patients and those at risk should alert their doctors to? How much of a risk do they create?**



*Neil Piller, PhD is professor of lymphology at Flinders University in South Queensland, Australia and considered one of the world's leading lymphedema experts.*

There is information on the Electronic Medicines compendium (2007) and the Micromedex (2007) and BNF (2007) indicating the range of medications which may cause oedema and their frequency. Obviously they are greatly variable but I think at least persons with lymphoedema (AUD/UK) or at risk for lymphoedema should be aware of the major groups of the medications which may cause oedema (they may do this by putting an additional load onto the lymphatic system or by affecting its ability to contract (effect on the musculature and nervous impulses to the muscles etc).

There is also a good paper by Vaughan Keeley "*Drugs that may exacerbate and those used to treat lymphoedema*", *Journal of Lymphoedema* 3 (1) (2008) which has a good summary of them. Basically they are:

- NSIADS
  - Hormones and related compounds
  - Anti depressants
  - Anti diabetics
  - Anti parkinsons
  - Anti psychotics
  - bisphosphonates
  - Cytotoxics (the worst)
- And a range of other miscellaneous medications

**Why do diuretics have seemingly little effect on lymphedema? And why do many family physicians still prescribe them regularly for patients with lymphedema?**

Lymphoedema is characterised by a higher than normal level of large proteins and other large molecules in the tissue spaces (that is in the fluid there). These have an osmotic (oncotic) effect - that is they attract water molecules (fluid). The large proteins are there since the most common means their removal via the lymphatic system is poor.

Diuretics work by reducing the fluid levels in the tissues but the moment their effect wears off the proteins again attract any remaining fluids back into the tissues and so the swelling rapidly reoccurs. Diuretics work best with the group of swellings called oedemas which are linked to lower protein levels in the tissues and are usually due to cardiovascular issues (this is a very brief summary of it all and one could go into diuretics and their effect of tubular reabsorption in the kidneys etc. )

Many General Practitioners, I imagine do not realise what is happening in a lymph-oedema and that the proteins (unless removed) will continue to osmotically attract fluids. Of course if there is an oedema component to the lymphedema then they may help but not in pure lymphoedema.