**Medications causing oedema**

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Oedema can be a side-effect of many medications including those used for the treatment of high blood pressure, Non-steroidal anti-inflammatory drugs, Steroids, Estrogens and a group of diabetes medications,

**Why does oedema occur?**

Medication -induced oedema has three general reasons for its appearance. Through 1) sodium overload/retention, 2) exacerbation of pre existing renal dysfunction and 3) increasing vascular permeability

Generally speaking, in the group causing sodium overload, oedema is most often associated medications which consist of high levels of sodium and sodium bicarbonate (for instance anti-biotics). For patients with pre-existing renal dysfunction, NSAIDs, anti-hypertensives, and anticancer drugs will be likely to induce oedema. For patients with pre-existing fragility issues (such as occur in lipoedema or in older persons) then the additional hyper-permeability that calcium antagonists, insulin etc cause can become an issue.

The message in this then is make sure you are aware of the current medications you (as a patient) or as a treating therapist and of any other pre-existing conditions. This is all part of the reason we must give/take a full Family, Medical, Surgical history and give/have a current Medications list.

Some medications cause more than oedema, Some may overload the lymphatics (or slow down/compromise) their ability to function well.

Below are some details of the specific medicines and their most common other side effects The key feature in all listed is they **cause** swelling in the extremities but there can be other issues as well – which we should be aware of

 [**Aliskiren, Amlodipine and Hydrochlorothiazide**](http://www.medindia.net/doctors/drug_information/aliskiren_amlodipine_hydrochlorothiazide.htm), throat inflammation: [**Ambrisentan**](http://www.medindia.net/doctors/drug_information/ambrisentan.htm) throat inflammation; [**Amlodipine Hydrochlorothiazide and Olmesartan**](http://www.medindia.net/doctors/drug_information/amlodipine_hydrochlorothiazide_olmesartan.htm); inflammation of the nasopharynx, joint swelling; [**Anagrelide**](http://www.medindia.net/doctors/drug_information/anagrelide.htm); fluid retention, flatulence, inflammation of pharynx ; [**Bexarotene**](http://www.medindia.net/doctors/drug_information/bexarotene.htm); liver function abnormalities, muscle spasm; [**Denileukin Diftitox**](http://www.medindia.net/doctors/drug_information/denileukin_diftitox.htm); diarrhea; [**Enzalutamide**](http://www.medindia.net/doctors/drug_information/enzalutamide.htm); high blood pressure; [**Felodipine**](http://www.medindia.net/doctors/drug_information/felodipine.htm); [**Fluoxetine and Olanzapine**](http://www.medindia.net/doctors/drug_information/fluoxetine_olanzapine.htm); increased weight; [**Pioglitazone and Metformin**](http://www.medindia.net/doctors/drug_information/pioglitazone_metformin.htm); Upper respiratory tract infection, diarrhea; [**Raloxifene**](http://www.medindia.net/doctors/drug_information/raloxifene.htm); flu-like symptoms, rashes; [**Sirolimus**](http://www.medindia.net/doctors/drug_information/sirolimus.htm); high blood pressure, constipation diarrhea, fever, urinary tract infection, joint pain ; [**Sunitinib**](http://www.medindia.net/doctors/drug_information/sunitinib.htm); fever, diarrhea, constipation, high blood pressure, rash, skin discoloration, difficulty in breathing; [**Tamoxifen**](http://www.medindia.net/doctors/drug_information/tamoxifen.htm); [**Verapamil**](http://www.medindia.net/doctors/drug_information/verapamil.htm); Constipation, upper respiratory infection, (perhaps a positive -low blood pressure)

You can see some which may slow lymph flow (constipation/bloating) and some which may cause inflammation and some which increase blood pressure. Again, it’s about being aware and being pro-active in asking for a change in any medication which may be making that little bit harder to help the lymphatic system work more effectively – which is the ultimate outcome of our treatment aim of lymphoedema!

**References**

Keeley, V (2008) Drugs that may exacerbate and those used to treat lymphoedema. Journal of Lymphoedema 3(1)

Given the prevalence of use of Calcium Channel blockers the following **older** article **may be o**f interest.  **It i**ndicates **their** mechanisms of actions and provides a generic review of **our** thinking.

Sica, D A Calcium Channel Blocker-Related Peripheral Oedema: Can It Be Resolved [Journal Clinical Hypertension (Greenwich).](https://www.ncbi.nlm.nih.gov/pubmed/12939574) 2003 5(4):291-4,