Those with a predisposition to lymphoedema are described in the following 4 groups:

Group 1

Predisposition Group 1: Includes those who have **cancer treatment** that involves removal of, and/or radiotherapy to, lymph nodes or vessels, or those with active cancer affecting the lymphatic system.

- The most commonly affected cancer groups are those that may involve the lymph nodes, for example, breast, melanoma, gynaecological, urological, lymphoma and head and neck cancers or in advanced disease.
- When tumours directly involve lymph nodes or subcutaneous tissues this may interfere with lymph collection and transportation process.
- Treatment that involves removal or irradiation of lymph nodes disrupts drainage pathways – the more radical the treatment the greater the risk.
- Some cytotoxic or hormonal treatments predispose to oedema, increasing the burden on the lymphatic system.
- Treatments are becoming more targeted (less invasive) in the early stage of cancers, such as sentinel node biopsy. The less invasive treatments offer a potential for a reduction in incidence of lymphoedema in this group.

Group 2

Predisposition Group 2: Includes those who have **medical conditions** that predispose them to secondary lymphoedema /chronic oedema or those who take medications with side effects that have the potential to exacerbate/cause oedema.

- These medical conditions include cardiac failure, venous disease (including deep vein thrombosis), recurrent cellulitis, lipoedema, neurological conditions that affect mobility and filariasis.
- Varicose veins cause venous hypertension and subsequent increased capillary filtration, resulting in an increase in fluid in the interstitial spaces.
- Any medical condition resulting in reduced mobility leading to reduction in the use of the calf and foot muscle pump can predispose to chronic oedema (dependency oedema).
- In these circumstances there may not have been any impairment originally in the lymphatic system, and the 'lymphatic failure' may be purely caused by persistent overloading of the subcutaneous tissues.
- Filariasis is a parasitic infection where thread like worms block the lymphatic system, this is generally not a risk in the UK.
- Medications known to exacerbate lymphoedema include Calcium Antagonists (Amlodipine), Corticosteroids, NSAIDS, Hormones and Anticonvulsants (Pregabalin) Parkinson's medication amongst others (Keeley, 2008).

Group 3

Predisposition Group 3: Those with latent (undetected) **primary lymphoedema,** see fact sheet 'What is Lymphoedema?' for more information.

- Those who have **primary lymphoedema** are born with an abnormal lymphatic system. This is genetic, although not always hereditary. The symptoms may be present at birth or may not develop until later in life. These patients are often unaware of their predisposition unless there is a clearly identified family history.

Group 4

Predisposition Group 4: Those whose **lifestyle** increases the burden on the lymphatic system.

- This group includes those with obesity, sedentary lifestyle, skin integrity problems or poor hygiene.
- Clinical research has shown that obesity is a significant risk factor for the development of secondary lymphoedema. The exact mechanisms are not yet fully understood but are likely to involve interactions between the lymphatic system and pathways regulating inflammation and fat deposition.
- Sedentary lifestyles along with high fat/sugar diets predispose to obesity, which can predispose to lymphoedema.
- Skin integrity problems along with poor hygiene increases risk of fungal infections or dry cracked skin, this can lead to cellulitis which can cause/ trigger/exacerbate lymphoedema (BLS 2016).

Implications

If an individual was in more than one of the groups above this would further increase their predisposition to developing lymphoedema. Being alert to predisposition to lymphoedema facilitates early detection/awareness allowing management/ self management to be initiated more quickly and may assist in continuing to maintain quality of life/mobility.

References

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About the British Lymphology Society (BLS)

The BLS is a membership charity run by and for its members who share its mission: -

To actively promote professional standards and the study, understanding and treatment of lymphoedema/ chronic oedema.

Through support of its membership, the Society seeks to achieve high standards of care and equitable access to treatment across the UK, raise awareness of the condition, promote early detection and intervention with supported self management. We work with other stakeholders, advise government, NHS and other professional bodies and organisations to effect change and influence practice.

See https://www.thebls.com for helpful resources and the benefits of membership.

About Lymph Facts

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