

Dimethyl Sulfoxide (DMSO)

Concerns for Usage in the Mouth

- **Introduction**

DMSO, or dimethyl sulfoxide, is a highly polar and water miscible organic liquid and is a powerful solvent. DMSO is a natural substance that is produced by the processing of wood pulp.

- **Background**

As an overview, DMSO has been around for a considerable period of time and has been used as a commercial solvent since the 1950s. DMSO can be used to treat pain and swelling caused by bladder or urinary conditions including cystitis (bladder inflammation or irrigation) per a review of www.drugs.com. To assess FDA's viewpoint on DMSO, one could possibly go to www.fda.gov and search DMSO. This brings up several different past posts to read and assess. Regarding FDA-approved commercially available medications containing DMSO, there do not appear to be many. Examples would be Diclofenac 1.5% and Diclofenac 2% - both of which contain approximately 45.5% of DMSO. DMSO, used topically, acts as a penetrant and does not differentiate between things that should not or should penetrate the skin or mucosal tissue – it essentially will drive in anything that is there.

- **Conclusion**

Although DMSO could certainly help medications, such as Semaglutide, be absorbed through the oral cavity, the fact that it does not differentiate and will drive anything and everything through is of significant concern. FDA does not appear to be generally supportive of the idea. If possible, avoiding DMSO usage in the mouth is typically desired. With the availability of SubMagna™ HMW, it appears that it is possible to avoid using DMSO in the oral cavity.