

## Dysphagia and Dysphagia Therapy

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Ingestion is a complex neuromuscular action involving the muscles of the lumbar spine and the upper digestive tract with the aim of transporting the food (bite) adequately from the oral cavity to the stomach. The swallowing action is divided into three phases, the first of which is the oral phase (voluntary action), and the other two pharyngeal and esophageal phases (reflex actions).

Dysphagia is a swallowing disorder that may occur immediately when food ingestion is initiated (most commonly, oropharyngeal dysphagia) or is a feeling of residual food and/or fluid passing from the mouth cavity to the stomach (most commonly due to esophageal dysphagia). It is a subjective feeling of the patient where he states that there is an obstacle that disturbs the process of ingestion of food or drinking fluid [1]. Swallowing disorders may occur with people of different ages [2], and can seriously undermine the quality of their life.

They persist in the clinical picture of various neurological, cerebrovascular, degenerative diseases and injuries and congenital anomalies as well as the application of mechanical and chemical forms of medical therapy. After a stroke, 23-50% of the patients have a problem with difficulty swallowing [3].

There are two types of dysphagia:

1. Oropharyngeal dysphagia (dysphagia oropharyngealis),
2. Esophageal dysphagia (dysphagia oesophagealis),
3. Functional dysphagia (no apparent organic cause) [4].

**Oropharyngeal dysphagia** presents an impaired passage of food from orofarhex to the esophagus. Also called “high dysphagia”. Problems occur at the very beginning of swallowing.

**Esophageal dysphagia** is a difficult food passage in the lower part of the esophagus. Also called “low dysphagia”. Common symptoms of dysphagia include: difficulty swallowing of solid foods or liquids, inability to swallow, feeling of “clogging” in the throat or throat, feeling “tightening” in the throat or chest, restoring food and/or fluid into the throat after swallowing, coughing/ choking during swallowing or immediately after ingestion, swallowing pain (odinophagia), weight loss due to insufficient food intake, sense of dehydration due to insufficient fluid intake, increased salivation, swallowing.

### **Dysphagia after surgical treatment of head and neck tumors**

The swallowing disorder can occur after surgical removal of head and neck tumors, and depends on the size and localization of the tumor, the size of the resection, and the type of possible reconstruction. During surgery, it is possible to damage the anatomical structures, muscles, nerves, bones and cartilage needed to maintain normal swallowing function. These are the resections of the base of the tongue, the resection of the tumor of the glands, the tumors of the larynx (partial and total laryngectia).

### **Disfigures after the radiotherapy**

Radiotherapy can lead to early and late eating problems. Early effects of radiation include: erythema, bleeding, pain, xerotomy and mucositis, and late effects are reduced capillary perfusion, osteoradionectrosis, trixism, changes in flora in the oral cavity and caries. All these changes lead to disturbance or food ingestion [5].

### **Dysphagia after chemotherapy**

All medicines used in chemotherapy can negatively affect food and water ingestion. The most common symptoms are painful swallowing, nausea, tingling, heartburn, vomiting, dehydration.

### **Therapy dysphagia**

Therapy dysphagia is divided into three groups and it is possible to combine them. These are diet therapy, swallowing therapy that includes compensatory techniques, direct and indirect therapy, and therapy requiring surgical intervention. The diet therapy supports the combination of various types of foods and the adaptation of its consistency, viscosity and texture. The size of the bolus is also combined because it affects the safety of swallowing and aspiration [6].

Therapy dysphagia is divided into three groups and it is possible to combine them. These are diet therapy, swallowing therapy that includes compensatory techniques, direct and indirect therapy, and therapy requiring surgical intervention. The diet therapy supports the combination of various types of foods and the adaptation of its consistency, viscosity and texture. The size of the bolus is also combined because it affects the safety of swallowing and aspiration [6]. Compensatory techniques and strategies include techniques of different body stays to help the weaker side of the body and muscles involved in the swallowing process. The effectiveness of this technique depends on the ability of the patient to follow certain tasks during swallowing. Within compensatory techniques, it is implemented:

1. changing the body's position, the position of the chin and head in order to reduce the risk of food penetration or aspiration;
2. supraglottic swallowing, that is, a technique that requires simultaneous breathing and breathing, and thus provides protection against aspiration [7];
3. supraglottic swallowing is a technique that requires except breath hold and bent head down [8];
4. swallowing with the effort, or technique involving the muscles of the calf's mouth and the pharynx [9];
5. Mendelsohn maneuver designed for the mutual weakness of the laryngeal movements and requires holding the arms of the neck muscles so that the larvae are in the upper position, while counting at least two seconds during swallowing [10], as well as numerous other techniques.

In patients with impairment of swallowing in the treatment, we can also use logopedic probes, which enable us to strengthen the muscles and nerves involved in the act of swallowing and prolonging the volume and duration of swallowing movement. Probes are used in oropharyngeal dysphagia.

## Conclusion

Early detection of swallowing disorders in patients is of great importance for early treatment with adequate therapy. Its goal is to protect the patient from the consequences of repeated pneumonia, dehydration, weight loss and psychosocial disability, all with a view to improving their quality of life.

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