

"LOSS OF SPEECH AND LANGUAGE"

Aphasia and other non-aphasia voice disorders related to the central nervous system

Literally "aphasia" means the "loss of speech and language". This disorder always finds its cause in a certain kind of brain damage – a damage of the speech and language dominated hemisphere of the cerebrum. A stroke – being the cause in most cases – can happen when cerebral blood vessels are tightening or closing. Brain damages may also be caused by other injuries such as traffic accidents, brain tumours or brain infections. In these cases, the complete or partly loss of one's speech and language skills occurs very suddenly. Affected individuals are no longer able to communicate with their environment as they used to.

Aphasia = difficulties in the following areas			
speaking	understanding	writing	reading
word finding	pronunciation	grammar	recognizing letters
confusing of sounds	melody of speech	communication behaviour	

This disorder affects the knowledge about linguistic and communicative structures as well as the actual ability to speak. **Expressive** as well as **receptive** skills are affected such as speaking, understanding, writing and reading.

However, there is more to speech than just **speaking – understanding – writing and reading**. **To lead and to follow a conversation** are essential functions that can be disturbed as well.

Depending on the appearance of the disorder and its degree of severity, **considerable impairment of the linguistic-communicative behaviour and experience** can be the consequence. For the patient, this constitutes a huge loss of daily-life capabilities – much more than just the ability to communicate in a non-differentiated and complex way. Patients who suffer aphasia as well as their families, in most cases experience a deep cut in their biography.

However, it is rarely the case that speech and language skills are completely lost. Aphasia patients often express that speech and language are still stored in their brain, but it is impossible for them to use it selectively. Cognitive competences of the patient are not necessarily affected. **Therefore it would be wrong to consider the aphasia patient as mentally disabled.**

Moreover, the aphasia patients experience one of the most essential skills of the human being – speech and language – as a problem! The human being is orientated to communicate with another; human intention is about understanding and being understood. If this is not possible any more, huge psychological and social problems arise which can lead to depression and social isolation (also due to the sudden leave from one's professional life).



APHASIA SYMPTOMS

affect – in most cases – all four performance areas of speech and language.

Therefore the following deficits can happen:

- **Difficulties in comprehending speech and language:** On no account, these disorders have anything to do with aural functions. Usually, aphasia patients can hear very well, but are no longer able to decode and interpret what they hear.
- **Impaired word finding:** Aphasia patients begin to flag, when words are missing, or when trying to speak, words somehow “land very close but still, just next to” the word they intended to use. So it can happen that the aphasia patient intended to say “chair” and comes up with “bank”. This deviation can be of even greater extent with the result that the said does not have anything to do anymore with the intended meaning of the word (for instance “star” instead of “chair”). Often, aphasia patients try to compensate their word finding difficulties with descriptions around it. An example: Instead of saying, “chair”, the aphasia patient says: “the thing on which you are sitting.” Also, deviations in the sound structure may happen. So it is possible that the aphasia patient misses out ignores, adds, replaces or confuses the one or other sounds when speaking. Often the intended word is recognizable, but sometimes not. So-called creations of new words emerge – or an incomprehensible word and sound salad as the result. An example here would be: “Thigh” instead of “high”.
- **Articulation difficulties:** The actual speaking can be especially problematic for the aphasia patient. The articulation suffers. They seem to struggle for each single word. Sounds are confused during speech.
- **Difficulties in the usage of grammar:** Some aphasia patients are only able to express single words. Sentence construction is not available to them anymore or is simplified. The structural principle for a sentence is reduced. Wrong sentence forms are used. Word association may contain wrong patterns.
- **Reading and writing difficulties:** It is impossible for the patient to identify letters or words. They are partly misinterpreted for the fact that the understanding of what was read is not functioning anymore or only partly functioning. Thus the patient is not able anymore to understand written texts. When writing, the patient often is unable to choose the appropriate letters for a certain sound.
- **Communication difficulties:** During a conversation, the patient is no longer able to assess the right moment as regards the change from speaking to listening (and vice versa). The patient finds it difficult to concentrate. He/she is not able to follow a conversation amongst a larger (more than two) number of people.

OBJECTIVES OF APHASIA THERAPY

The aphasia therapy depends on various factors and needs to be planned individually. **First of all, a linguistic assessment is important to evaluate the kind of aphasia, main difficulties and the degree of severity of the impairment.** Further possible consequences of the actual brain injury have to be considered when planning the therapy (e.g. if the patient is paralysed on the right side, it is necessary to re-learn writing with the left hand, limited concentration and attentiveness have an impact on the duration of the therapy and its structure). This means, that the various cognitive functions such as learning, memory, attentiveness and solution-orientated thinking are important factors for the success of an aphasia therapy. The language chosen by an individual expresses his/her “personal world”, interests and preferences. Some people may find it easier to retrieve words such as “computer, net, file” whilst other people hardly show any difficulty in retrieving terms such as “goal, trainer, penalty, game”. Therefore it helps the therapy to obtain some information on the personality of the aphasia patient such as profession, hobbies, interests, preferences etc. Often the aphasia patient is not capable of giving such information though it helps to consult the patient’s family, relatives or friends.

STRUCTURE OF A THERAPY

DYNAMIC PHASE

Activation phase: Directly after the event that caused the aphasia such as a stroke, an accident or an operation (neurologically acute phase), the therapy is often focused on the wide-ranging activation of all linguistic levels. As long as symptoms have not stabilized and remain unclear to their definition, stimulation exercises and exercises to resolve blockades are used.

Phase of disorder-related exercises: During the neurological phase of symptoms stabilization, gradually the specific work in separate linguistic structures develops. During these two phases, the spontaneous rehabilitation can be clearly observed. After four to six months, this becomes more and more difficult.

CHRONIC PHASE

Here, modifications and improvements of neuro-linguistically definable deficits in the linguistic system are increasingly difficult to elaborate. The **consolidation phase** now intends to adapt the behaviour and actions of the patient to the symptoms that have remained and are still experienced as great impairment.

During the course of therapy, the work focuses on the transfer of what was elaborated and learnt to daily life conversations. Further strategies are developed that help to master daily life requirements as independently as possible according to the present aphasia symptoms.