

Recovery Means more than Inactivity!

Erholung ist mehr als Nichtstun!

Vacation for most pupils, students, teachers, professors and employees is usually considered a time in which they seek recovery and often find it. Whether this time passes in conflict or ideally as recovery depends on personal constellations and values.

When the days were restful, the question arises of how long this recovery effect lasts. Unfortunately, not very long, as studies of the professional life of teachers or trainers have confirmed (1). Even the recovery effect of seven days of skiing is partially offset by longer journeys to and from the ski area. For this reason, it is important to pay attention to recovery in normal everyday life after vacation.

What Is Recovery Actually?

About 20 years ago, Wolfgang Kallus formulated general characteristics which help to structure recovery (2):

- Recovery is a process at the time of and dependent on the nature and duration of stress
- Recovery is coupled with a reduction of load, a change of load or a pause
- Recovery is person-specific and dependent on individual values
- Recovery can be passive, active and pro-active
- Recovery is closely bound to incidental conditions (such as rest, sleep, contact with a partner).

Recovery is more than inactivity. It is an active and targeted process to offset strain and its consequences. The characteristics described by Kallus (2) are general and thus applicable in a sports context. The trainer expects a (usually) rested athlete at training, who can cope with training stress. Since after training is in turn before the next training session (whether on the same or following day), recovery processes after training stress must be taken into account.

Thus the question is interesting whether recovery occurs after stress or whether a person must be rested before being exposed to stress and thus, for example, trained. This question, which at first looks like the philosophical "which came first, the chicken or the egg?", applies to the definitions, measuring methods and intervention forms. This is addressed in the Consensus Statement Recovery and Performance in Sport, which cites the definitions of recovery and the related terms, measuring methods, models as well as aspects of monitoring and resultant conse-

quences for trainers/athletes (4). Moreover, the Consensus Statement brings clarity to the use of terms and differentiates them from one another. For example, under-recovery and Non-Functional Overreaching (NFOR) are two closely related concepts which differ minimally but have serious differences in their consequences.

Under-recovery is a broadly assumed state of inadequate recovery as a reaction to general stress (e.g. job, family, conflicts). NFOR, by contrast, is described in a basic Consensus Statement on the Overtraining Syndrome as training-specific, negative, psychological or hormonal changes (5). A summation of under-recovery from everyday demands coupled with NFOR in training and competition culminates in an Overtraining Syndrome.

Recovery in sports must be considered from a multidisciplinary point of view. Medicine, Neuroscience, Psychology and Sport sciences have made valuable contributions on topics like well-being, sleep and travel, training methods and design. All this has implications for applied and strategic interventions to stabilize performance and return to former performance capability. Another goal is the promotion of health and well-being - in sports and beyond.

Recovery-Stress Patterns

Four recovery-stress patterns can be identified. The patterns "high stress – low rest" and "low stress – high rest" are each found in about one-third of the people and the content orientation is homogeneous, i.e. it is understandable that people who have low stress are well-rested and vice-versa. Moreover, people who do not suffer back pain, but who have high stress and low recovery values have an increased probability of developing back pain within the next six months (6). The two patterns "low stress – low rest" and "high stress – high rest" are shared by the last third of the total distribution.

Assuming that recovery and stress are independent of one another (but still interact with one another), it can be concluded for the last-named subgroup that it is "not bad" to have high stress, as long as the person knows how to rest. Despite high stress, these people know what to do and can fulfill their recovery demands. More problematical are those people who have low stress because there is often no awareness that a recovery process is to be actively initiated. Under the motto: I don't need to rest, since I am not under stress. >

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That usually works out until there is a longer phase of stress. A current study shows that the weeks of the winter and summer pauses are recovery-relevant periods for soccer trainers. The winter pause interrupts the constant rise in trainer stress from the start of the season. This, unfortunately, does not last long enough in many cases, so that there are similar stress values at the end of January as before the winter pause.

Thus, it is important to build up effective resources in the long term from which, for example, trainers can draw when the season again becomes strenuous. Often people become trainers who were former professionals or at least people with athletic backgrounds. Less attention is paid to one's own physical exercise with increasing distance from the active career and sitting a lot does the rest. This should be and can be easily offset, since physical recovery can be positively influenced by active sports or a fitness program.

Rest is important for everyone! It can be initiated as a functional process when a person has access to the individual functional recovery strategy. This topic must be consciously addressed in order to apply recovery toward the right goal – then the recovery will last longer after the next vacation. ■

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