

# Post-traumatic stress disorders are many and varied

Measures and methods of treatment by the Bundeswehr  
[German Federal Armed Forces]

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With the extension of the mandate of the German Federal Armed Forces, the concept of post-traumatic stress disorders was established in the Department of Psychiatry and Psychotherapy of the Bundeswehr Medical Services. Experiences or situations that deviate from normal, everyday life may trigger post-traumatic stress disorders. Being a witness to or a first responder in serious road accidents could, for instance, be a one-time stressful situation, while experiences such as torture, mobbing, abuse or wars are situations of recurring or ongoing stress. The latter events mainly affect soldiers. During military conflicts soldiers are repeatedly confronted with traumatic situations, injuries and death. Further, constant strain during the deployment can contribute to the inability to come to terms with the experience, for example even combat operations. The affected person calms down only after the deployment is over. However, it is at this point of time that the experiences very often replay in the mind and, consequently, it is not possible to cope with them anymore. This condition is called post-traumatic stress disorder (PTSD).

In medicine, post-traumatic stress disorders are those caused by a delayed response to a stressful one-time or recurring negative experience. Typical symptoms of the development of a PTSD are nervousness, insomnia/sleep disorders, nightmares, aggression, rejection as well as feelings of guilt and shame. Affected persons cut themselves off from their social environment, work overtime, avoid contact with family and friends, in short: professional help is essential.

## Treatment of PTSD for soldiers of the German Federal Armed Forces

In the German Federal Armed Forces, in the event of illness, the psychologically traumatized soldiers are first given treatment at the German army hospitals and specialized medical centers, as these institutions have the appropriate knowledge of military-

specific characteristics. At the same time, civilian healthcare facilities are also included in the treatment, especially considering that medical care should be available close to home. In 2010, the German Federal Armed Forces established the research and treatment center for psychotraumatology and post-traumatic stress disorders at the Bundeswehr hospital in Berlin as a "trauma center." This ensured a direct exchange of knowledge and experience between basic scientific groundwork and research as well as medical care.

In early 2012, the "group sport therapy for impairment after mission" was established at the Bundeswehr Sports School at the initiative of the then inspector of the Joint Support Service, Admiral Kühn.

For example, the US Armed Forces have been successfully using electrical stimulation for over 10 years not only for the treatment of PTSD but also insomnia/sleep disorders, anxiety and depression.

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Overseas deployment is no cakewalk. A part of the Bundeswehr soldiers return with symptoms such as insomnia,

panic attacks, anxiety and depression. The diagnosis "post-traumatic stress disorder" is on the increase. In



*Insomnia, panic attacks, anxiety and depression.*

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The purpose of these training programs is to restore the physical and mental fitness of soldiers, who were wounded or disabled in action. Training courses are conducted for this purpose. Even soldiers with pure post-traumatic stress disorders are accepted; especially if doctors have determined that sports could help the affected persons to clear their mind again to some extent.

The total number of persons newly diagnosed with deployment-related psychological disorders in 2015 has remained more or less constant as compared to the previous year; however, there is an increased incidence of PTSD by about 15%.

## How do armed forces of other countries deal with PTSD?

The example of the US Armed Forces shows how PTSD can also be successfully treated by using a micro current procedure, which has in the meantime undergone successful clinical trials.

the case of fighting troops, a cross-sectional study shows that over 50% of the soldiers suffer from insomnia



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or sleep disorders. Good sleep and good mental health are, however, extremely important to be able to concentrate on work in routine operations and to meet the high demands of field duty.

For over a decade, the US army has been successfully using an electrical stimulation method, in which low-intensity currents are applied via earclip electrodes—also called cranial electrotherapy stimulation (CES)—with the Alpha-Stim® device. Over 200 doctors of the Department Of Defense and 92 veteran hospitals treat anxiety, depression, insomnia/sleep disorders as well as acute, chronic and post-traumatic pains with Alpha-Stim AID.

The device is used even in combat-related PTSD programs.

1.) The effectiveness of the device in the various indications as well as the



Dr. Axenia Schäfer, healthcare consultant  
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Colonel Dr. Uwe F. Winkler (German military reserve forces) and journalist Peter Scholl Latour together in the German Federal Armed Forces camp in Kunduz.  
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tolerance of the treatment have been documented in over 95 randomized controlled trials, open studies, published reports and surveys. No serious side-effects have been reported since the approval of the device.

In 2014, the United States Army Medical Department Journal published the results of a survey (n = 1,514) among civilians, members of the armed forces and veterans, which collected data from 2006 to 2011.

2.) Clinical improvement of the symptoms by 25% and more with CES using Alpha-Stim® was reported by 66.7% of anxiety patients, 62.5% of PTSD patients, 65.3% of patients with insomnia/sleep disorders and 53.9% of the patients under depression. The majority did not state any clinical improvement of  $\geq 50\%$ . The effects were greater for patients, who did not use CES in combination with medication.

In CES, current in microampere range and with a special waveform is applied through two pulse sensor (earclip) electrodes. Studies could prove that neurotransmitters like serotonin and beta-endorphin increase in the plasma and the cerebrospinal fluid.

3.) EEG studies show an increase of alpha-waves through CES stimulation. 4.5 alpha waves are the predominant frequency of the brain under conditions of conscious relaxation.

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