According to a first aspect of the invention this object is achieved by a portable EEG monitoring apparatus, said apparatus comprising: EEG pick-up means adapted for measuring at least one EEG signal from the person carrying the apparatus, a signal processing means for analysing said at least one EEG signal and adapted to identify or predict predetermined biological incidents in said person based on said analysis, a decision means adapted to decide when information is to be presented to said person, a message selection means for selecting a voice message providing said person with information, and an acoustic transducer adapted for presenting the selected voice message to the person~~.~~, where said apparatus is adapted to present the voice message in the ear of the person.

According to a second aspect of the invention there is provided a method for presenting voice messages in a portable EEG monitoring apparatus, said method comprising measuring at least one EEG signal from the person carrying the apparatus using an EEG pick-up means, analysing said at least one EEG signal using a signal processing means adapted to identify or predict predetermined biological incidents in said person based on said analysis, deciding, using a decision means, when information is to be presented to said person, selecting, using a message selection means, a voice message providing said person with information, and presenting, in the ear of the person, the selected voice message to the person using an acoustic transducer.

Using a voice message rather than, e.g. a simple warning tone, has many advantages. A major advantage, however, is that a voice message, such as a spoken warning is far more pervasive in getting the attention of the person addressed, and far easier for the person to respond correctly to. Bearing in mind that the purpose of the EEG monitoring is in first instance to warn the person about threatening biological incidents such as imminent hypoglycaemic seizure, it is very likely that the warning issued by the apparatus is issued at a time where the person is already no longer at his full mental capacity or even on the verge of unconsciousness. An voice message is in this situation not only far more efficient in alerting the person, but may moreover actually contain direct instructions regarding the corrective actions to be performed, in order to

avoid the threatening condition. Thus, the person who may already be partially mentally incapacitated, will not only get an alarm at a time where he is no longer capable of remembering what the correct corrective actions are and how to perform these, but will get a voice message reminding him of he correct corrective actions. Thus, according to a preferred embodiment said voice message relates to said biological incident.

According to a preferred embodiment of the first aspect of the invention, said voice messages are stored in the apparatus. Storing the voice messages in the apparatus obviates the need of carrying any further devices, or the need of a synthetic voice generator.

According to a further preferred embodiment of the first aspect of the invention, the voice messages are formatted into a format suitable for storage and replay in the apparatus. This reduces the need for storage space, and may thus allow for an overall size reduction, or the storage of a larger variety of voice messages.

According to another embodiment of the first aspect of the invention, said voice messages have been edited in accordance with the hearing capabilities of said person. Editing the voice messages allow built-in adaptation of the messages to a specific hearing loss of the person. This, in turn, increases the intelligibility of the voice message.

According to yet another embodiment of the first aspect of the invention, the apparatus comprises means for adjusting the presented voice message to the current ambient acoustic noise level when presenting the message. This further enhances intelligibility of the message.

According to a further embodiment of the first aspect of the invention, the apparatus comprises means for allowing the person carrying the apparatus to store messages therein in accordance with the persons own choice. This allows the carrying the apparatus to choose straight forward easy to understand messages.

~~According to yet a further embodiment of~~As mentioned in the first aspect of the invention, the apparatus is adapted to present the voice message in the ear of the person. Presenting the message directly in the ear of the user is advantageous in that it reduces external disturbances such as ambient noise. Moreover, it is advantageous in that it

allows the EEG monitoring