Chapter 5 Biofeedback

Biofeedback:

- An improvement depends on:

  - The process of biofeedback training places the individual in a ________________ that continually provides information about subtle changes ___________________

The Training Process

- The Trainee
  - The subject of a biofeedback experiment or the client who seeks biofeedback therapy
  - ________________

- The Trainer
  - ________________

- The Instrument
  - Biomedical Polygraph or Electroencephalograph (EEG):
    - Biofeedback Machine:
      - Multichannel Data acquisition System:

  - Private, Home Use models:

- The Training Sessions
  - First the subject must learn to
  - then the subject must learn to produce the desired response change ________________. He or she must become aware of internal sensory cues that provide information about the overall physiological state and the relationship between this state and the external feedback.
  - Four major types of training sessions:
    - Baseline sessions:
    - Shaping and reinforcement sessions:
    - Test sessions:
    - Follow up session:

Biofeedback Application:

- Successfully used to treat:
Headache:
- Over 80% of headache are ________________
  - Sustained contraction of _________________ in the scalp, face shoulders and neck combined with ______________ (less than the required or normal blood supply) in the affected muscles
- Use EMG feedback assisted relaxation: Subjects who received frontalis (two muscles in your forehead) EMG biofeedback treatment had significant lower EMG levels than did subjects who received ________________
  - Substantial reductions in headache activity for most subjects within an _______ week period involving _____ sessions a week
- Significant variables in the treatment of headaches:
  -
  -
- More affective than _____________?

Migraine Headaches
- Four Characteristics of Migraines:
  -
  -
  -
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- Treatments:
  -
  -
  -

Asthma
- Characterized by changed sensitivity of the _________________ (mucous membrane lining) and _________________ which in turn produces increased resistance in the airways
  - Treatments
    -

Biofeedback and the Production of Altered States
- “Alpha State”:
  - During certain ________________, there are consistent physiological changes that include ______ wave and occasional ______ wave activity
  - Debated Because:
    - An actual alpha state does not exist, using a term suggests that the brain is
    - Only about 50% of the subjects actually r