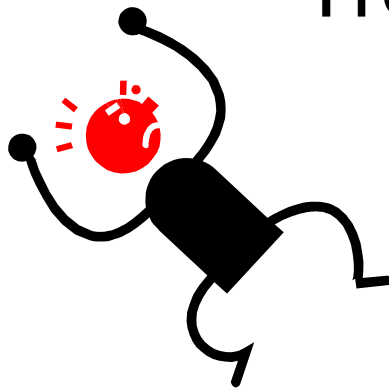




# INDIVIDUAL DIFFERENCES

Treating mental disorders.



# BIOLOGICAL THERAPIES.

Chemotherapy- aka drugs.

If you recall from stress management there are 3 types of chemotherapy available depending largely upon the diagnosis.

Anti psychotic drugs.

Anti-depressant drugs.

Anxiolytic drugs.



# Anti –psychotic.

- ✓ For the use of illness such as schizophrenia and bipolar disorder. The drugs work to help the individual function as normally as possible. An example of an anti-psychotic = Chlorpromazine, they are used to counter the effects of the positive symptoms displayed by a schizophrenic such as hallucinations.



# How do anti-psychotic drugs work?

- ✓ The drug reduces the effects of dopamine and therefore reduces the symptoms of the condition.
- ✓ The drug binds with the D2 receptors blocking their action.



# How do anti-psychotic drugs work?

- ✓ Atypical antipsychotic drugs act on dopamine too, but also work on the serotonin system.
- ✓ The drug allows normal dopamine transmission by occupying D2 receptors initially then dissociating themselves later.



# Anti-depressant.

- ✓ These drugs relieve the symptoms caused by low arousal of the ANS.
- ✓ SSRI (selective serotonin reuptake inhibitors) The drugs work on symptoms such as panic attacks.
- ✓ Anti depressants are usually prescribed for a short period and reviewed periodically by the GP/health professional.



# How do anti-depressant drugs work?

- ✓ These drugs work by reducing the rate at which the body reabsorbs or blocks enzymes that break down neurotransmitters (*in depression that would be serotonin!*).
- ✓ Both of the above mechanisms increase the amount of neurotransmitters available to excite neighbouring cells..
- ✓ **Tricyclics**- Block reabsorbing of Serotonin and epinephrine into the cells as they fire, thus leaving enough behind to make later transmission of the next impulse easier.
- ✓ **SSRIs**- Block serotonin increasing the amount available to excite neighbouring cells.



# Anxiolytic.

- ✓ The main purpose of these drugs are to reduce anxiety and bring the symptoms suffered by the individual under control.
- ✓ Common names for Anxiolytic drugs are
  - ✓ Beta-blockers
  - ✓ Benzodiazepines



# How do Anxiolytic drugs work?

✓ Beta-blockers

We have increased physiological arousal when we are anxious e.g. increased HR, beta blockers reduce the effects of epinephrine. This allows the arteries to widen and slow the action of the heart.

✓ Benzodiazepines

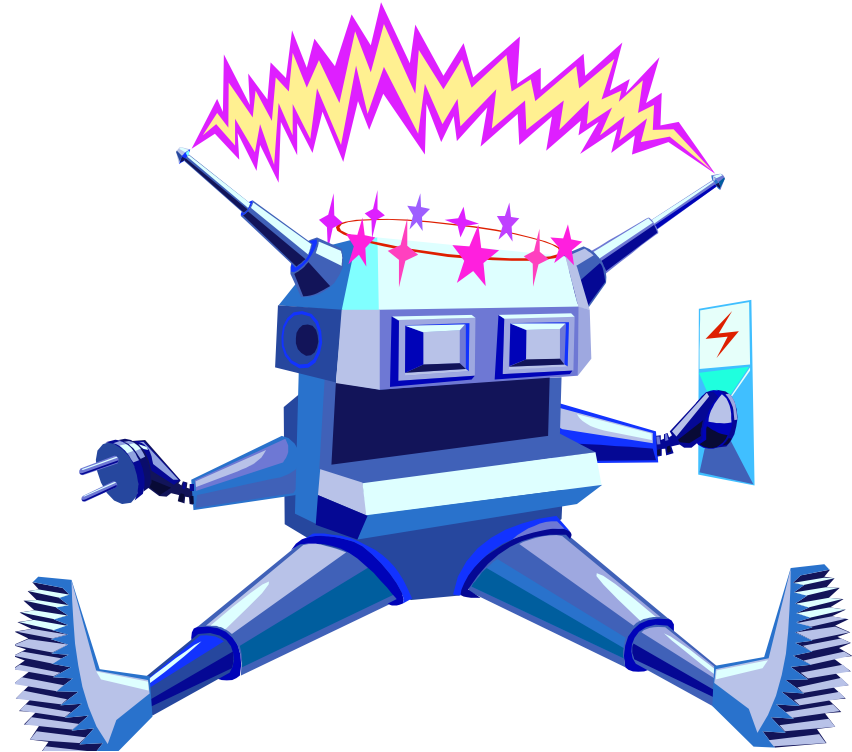
Increase the action of GABA, a chemical that slows down the transmission of nerve signals to the brain.

GABA decreases serotonin activity and slows down neuron activity by allowing chloride into the neurons.



# ECT (Electro-convulsive therapy)

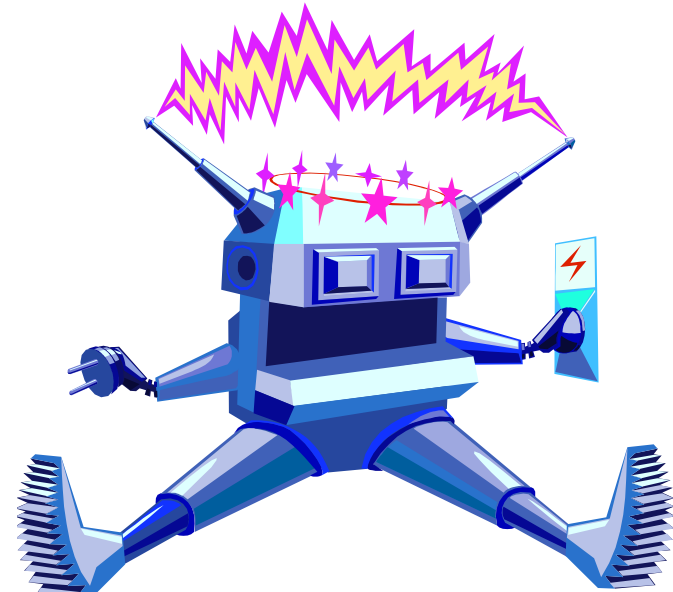
- ✓ Used for severely depressed individuals for whom other treatments have proven unsuccessful.
- ✓ It can also be used to treat some of the symptoms of schizophrenia e.g. manic episodes.
- ✓ An electric current is passed through two electrodes that are placed either on the temples (bilateral) or alternately One electrode is placed on the non-dominant side of the brain and the other is placed in the middle of the forehead (unilateral)



# ECT (Electro-convulsive therapy)

The patient is given a sedative type drug so they are unconscious before the shock is given and a injection of a drug known as a nerve blocker, this stops the patient from contracting during the treatment (which could hurt them).

- ✓ A small shock is then passed through the brain for approx 0.5 of a second and this produces the seizure that can last up to a minute.
- ✓ This treatment will usually be administered 3x a week for between 3-15 treatments.
- ✓ It is thought that ECT decreases the number of norepinephrine so the brain is tricked into producing more.
- ✓ ECT also decreases the number of postsynaptic serotonin, which increases the amount available to stimulate the brain.
- ✓ Neuroendocrine hypothesis states that the seizures cause a shift in hormonal balance thus decreasing the symptoms of depression. The hypothalamus releases chemicals that cause change in many areas particularly the areas that regulate mood.



# AO2 ECT.....

## *Effective?*

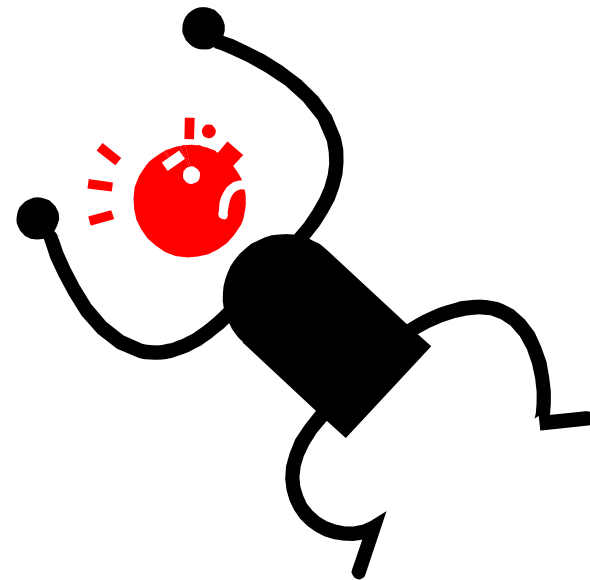
- ✓ In the short term and success rates high with placebo too
- ✓ Some studies suggest it may be damaging or unhelpful (DOH 1999)

## *Appropriate?*

- ✓ Quick & Easy
- ✓ Does work!
- ✓ Side effects- memory loss, trauma
- ✓ Ethics- DOH (1999) informed consent?
- ✓ Are there any other alternatives?

# Psycho-surgery.

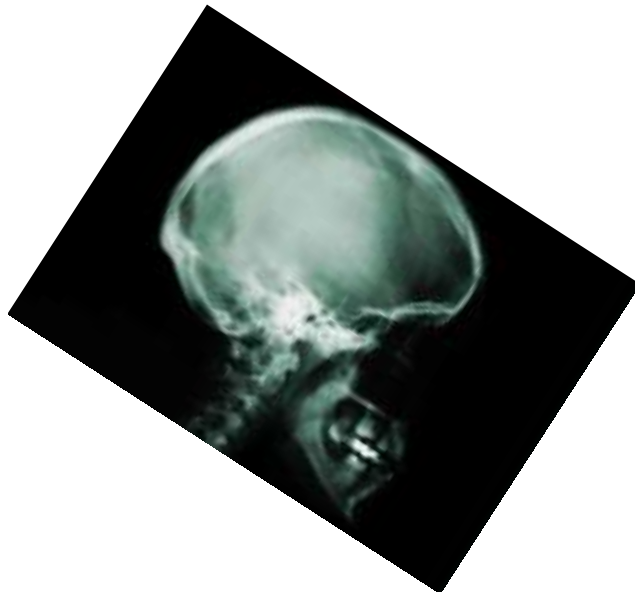
- ✓ Prefrontal Lobotomy  
This procedure involves selective destruction of nerve fibres, the purpose of this procedure is to alleviate some of the symptoms suffered by individuals with mental health problems.
- ✓ Stereotatic psychosurgery  
Rather remove large sections of the frontal lobe surgeons can now use computer based stereotatic imaging to locate the precise point. They may then either burn the area using the tip of a hot electrode or use a non invasive tool like a gamma knife to focus beams of radiation on the targeted site.



# A02 Psychosurgery.....

## Effective?

- ✓ 56% success with OCD sufferers Cosgrove & Rauch (2001), treatment is a last resort, thus what can it be compared to?



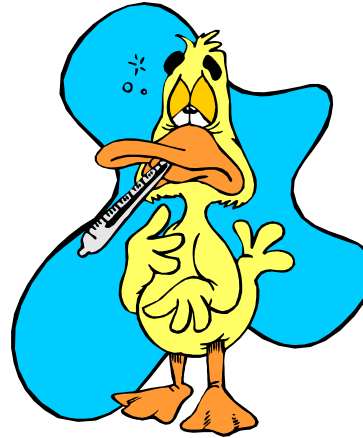
## Appropriate?

- ✓ Is it appropriate for a non identifiable, non organic problem i.e. mental issues?
- ✓ The psyche cannot be seen...how can you work on it?
- ✓ Side effects- brain damage
- ✓ Ethics-informed consent/ risk assessment?
- ✓ Are there any other alternatives?.....*deep brain stimulation...*

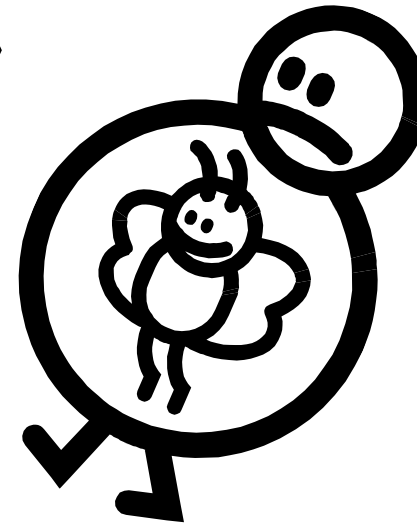
# Behavioural therapies.

The therapies below are based on Classical conditioning principles- learning by association.

- ✓ Aversion Therapy- A undesirable behaviour is associated with a undesirable stimulus, this leads to the undesirable behaviour being eradicated/suppressed. (Remember treatment of homosexuality!)



- ✓ Systematic desensitisation- The individual is exposed gradually in a safe environment to their feared stimulus- this is completed whilst the individual is taught relaxation techniques and the fear is then eventually eradicated.



# Behavioural Therapies.

The therapies below are based upon operant conditioning principles- learning through reward & reinforcement.

- ✓ **Behaviour modification-** behaviour is assessed in the vain of ABC

A= Antecedent

B= Behaviour

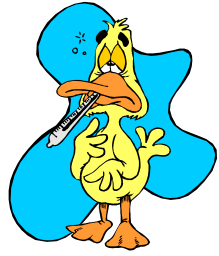
C= Consequences.

Behaviour therefore can be changed by manipulating the condition preceding or following the behaviour, thus behaviour that is reinforced will occur more often and behaviour that is not reinforced/punished will occur less frequently.

- ✓ **Token Economy-**

The individual is given '*chips*' for positive behaviour and have '*chips*' withheld for negative behaviour. The tokens can then be exchanged for desired items i.e. activities/sweets etc. The frequency of being given '*chips*' increases with the patients desirable behaviour- thus reinforcing positive behaviour.





# A02 Behavioural (Classical).....

## Effective?

- ✓ **Addictions**- No comparable difference when tested on alcoholics Miller (1978) conversely Smith et al (1997) found better rates of abstinence after 1 year with those who had aversion therapy.
- ✓ **SD**- Good success rate for those suffering anxiety.

## Appropriate?

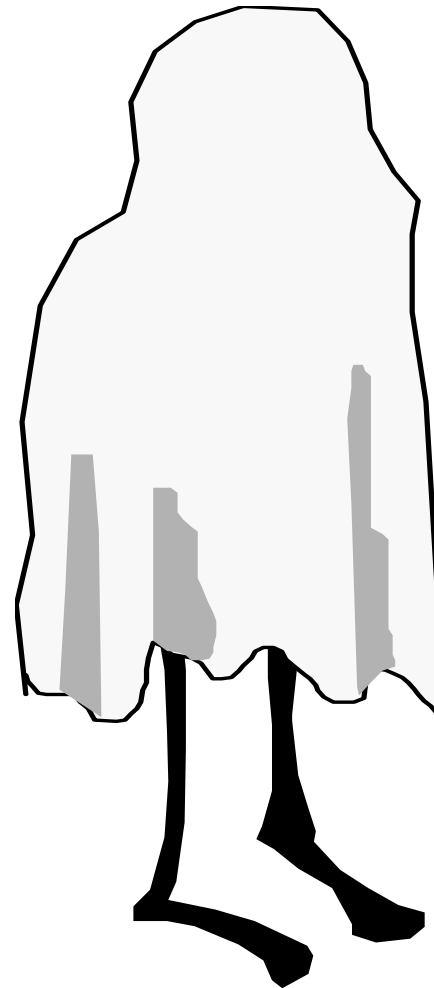
- ✓ **Quick**, less effort required.
- ✓ **High** drop out rate.
- ✓ **Ethics**-Can inducing stress actually relieve stress?
- ✓ **All behavioural** techniques have roots in behaviourism i.e. learning not always successful as humans and animals react differently, majority of early evidence based upon research carried out using animals.

# Psychodynamic therapies.

**Psychoanalysis** – It is practised under the assumption that the individual is unaware of the root cause of their neuroses. Psychoanalysis works to bring to the conscious mind the underlying conflicts. Some of the techniques used we have visited previously.....

*Free association*

*Therapist interpretation*



# Psychodynamic therapies.

(Lasts approx 6mths-4yrs depending on trauma experienced & timing)

## Play Therapy

Often used for children as they are unable to articulate their feelings or thoughts like adults . This therapy allows the child to recreate the issue within their own world i.e. play.

This can occur in one of two ways, *directive* or *non directive play*.

Directive: The therapist is more active and structures the sessions for the purpose of assessing and diagnosing. i.e. the child may be asked to draw their family.

Non-directive: Child will recreate the emotional issue that they have been unable to articulate with the use of toys. The therapist listens and observes what is happening.





# A02 Psychodynamic

## Effective?

- ✓ **Freud**- Evidence from his case studies clearly demonstrate the approach works (in short term!) in certain circumstances.
- ✓ (Remember Anna O)
- ✓ **Factors to consider**- Therapist, patient, illness, therapy- all influence success.
- ✓ **Play therapy**- Children respond positively to the play, does not feel intrusive or threatening.

## Appropriate?

- ✓ **Theory** cannot falsified.
- ✓ **Questionable** effectiveness.
- ✓ **False** memory syndrome.
- ✓ **Play therapy**...what alternative is there at present?
- ✓ **Ethics**- Guidelines specific for children needed Association of play Therapy (2000) published their own guidelines