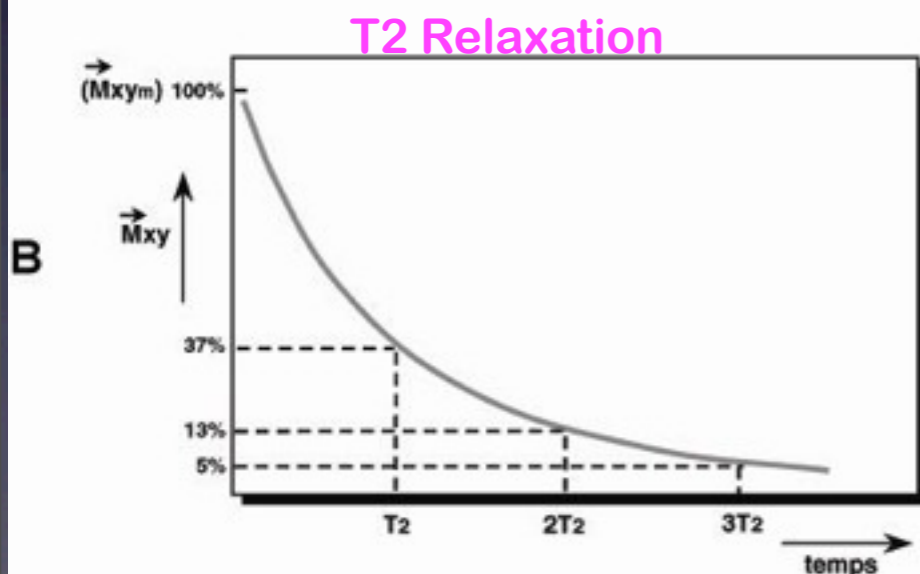
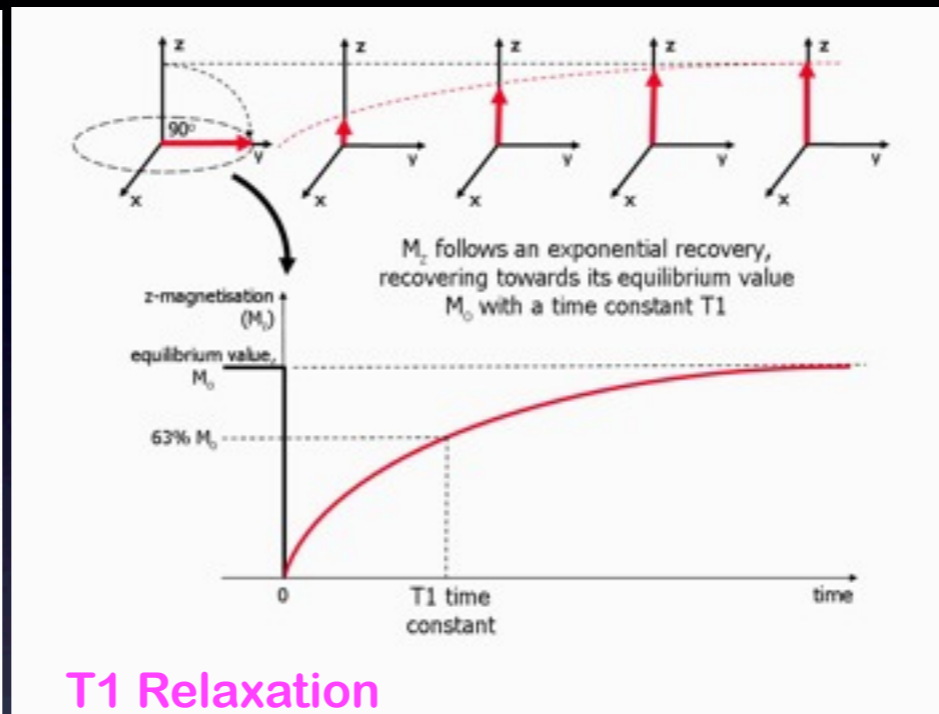
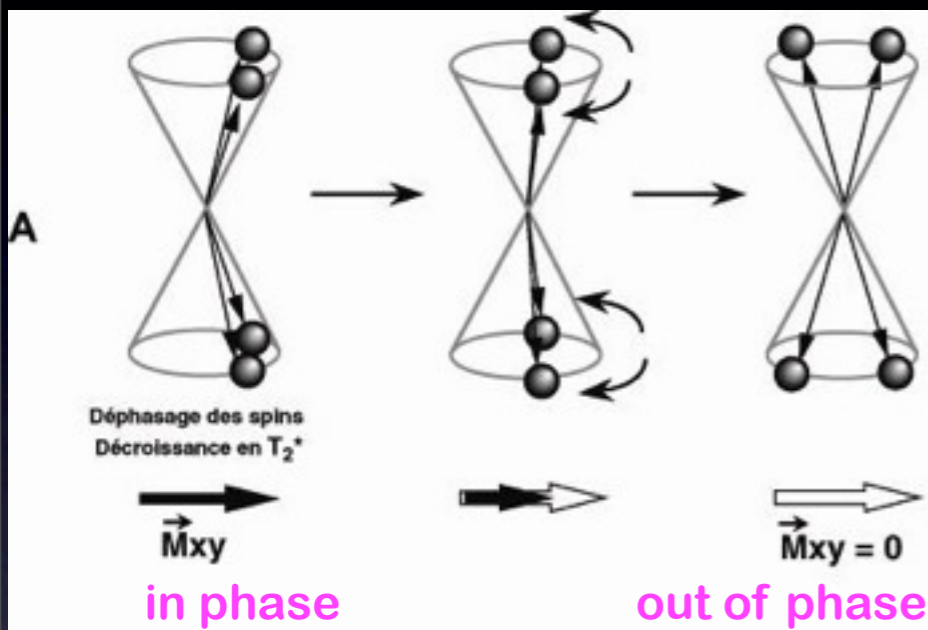


T1 and T2 relaxation



Ask Mish

- When we **remove the radio frequency** signal, the protons will relax back into their baseline position.



- **1st:** p^+ spins being positively charged will **repel each other** and move apart (**out of phase**) and this is why they will lose the transverse magnetization. The process is called **T2 or "SPIN-SPIN" RELAXATION** because it involves the p^+ and their spin. No energy transfer occurs.
- **2nd:**
- In **T1 or "SPIN-LATTICE" RELAXATION** the p^+ will give back the absorbed energy in the form of **heat** to the surrounding tissues and will **regrow the longitudinal magnetization** as they go back to the lower energy state.