

We're going to be looking at these electrical impulses, these flashes which are called action potentials, are crossing 3 neurons in a circuit here and as we look at higher power, we can see it crosses the synapse moves onto the next neuron in the circuit, crosses another synapse, finally activates the next neuron in this chain. And if we begin to focus at slower speeds and at higher magnification, we're going to focus on the information transfer at that single synapse. So there is the dendrite on the right, the synaptic terminal on the left, and as the impulse information comes down, these little green discs are channels in the synaptic terminal that open. They let calcium ions into the nerve terminal. Calcium ions then activate small packets of neuron transmitter, which release their contents into the gap of this synapse. Some of them diffuse away but others activate receptors on target neurons. They open yet further channels, which let sodium ions in and so this information transfer propagates from one neuron to the next along these connections.