

MALIGNANT HYPERTHERMIA

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- muscle contraction requires calcium that is stored in the sarcoplasmic reticulum (SR)
- the ryanodine receptor forms a channel in the membrane of the SR of skeletal muscle through which calcium can flow
- following a signal, the channel opens to release calcium from the higher concentration in the SR to the lower concentration in the cytoplasm and the muscle contracts
- after contraction is complete calcium returns to the inside of the SR
- return of calcium to the SR requires energy input from ATP because the calcium is moving from a lower concentration to a higher concentration, like climbing a hill

