

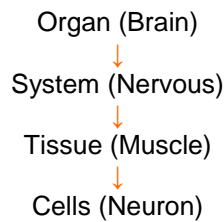
PEPTI-tone

There are many peptides on the current market that claim to block or weaken messages from the brain to the receptors on the cells of muscle tissue. To understand this neurological process, one must understand how cell-to-cell communication works.



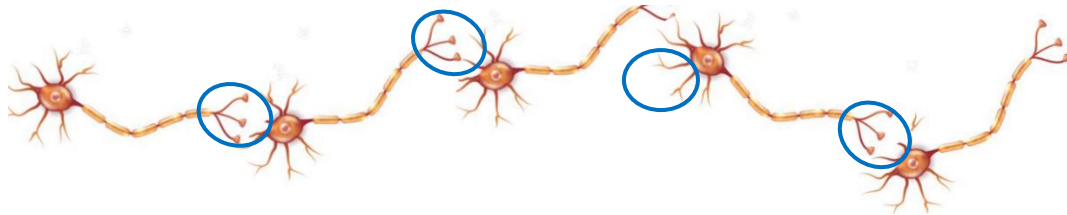
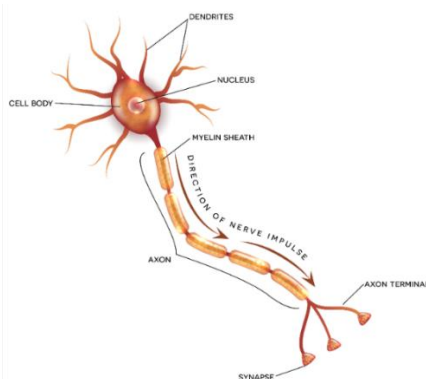
The body consists of eleven systems made up of various organs created from the same types of tissue that are composed of the same form of cells. We will concentrate on the brain, the nervous system, muscle tissue and neuron cells.

Each time you make an expression - such as a frown, it is in response to a stimulus received by the brain. The brain sends a chemical message through the nervous system to the receptors on your neuron cells in your muscle tissue that tells you to frown.

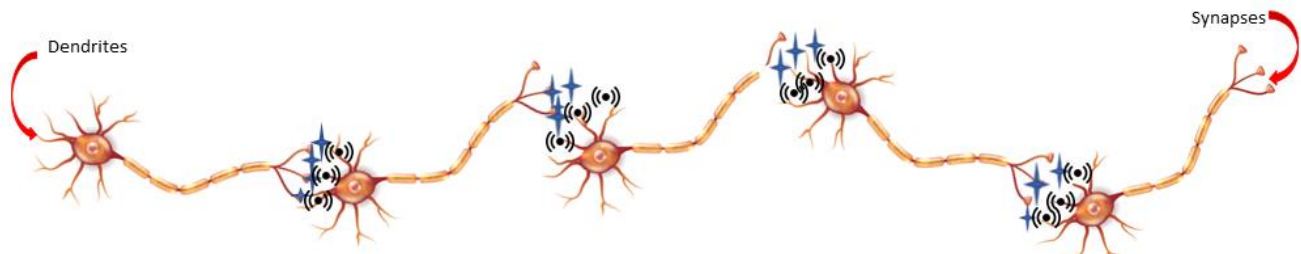


Cell-to-cell communication occurs as cells transfer messages from one cell to the next. Neuron cells with branch like extensions called dendrites, make up the nervous system.

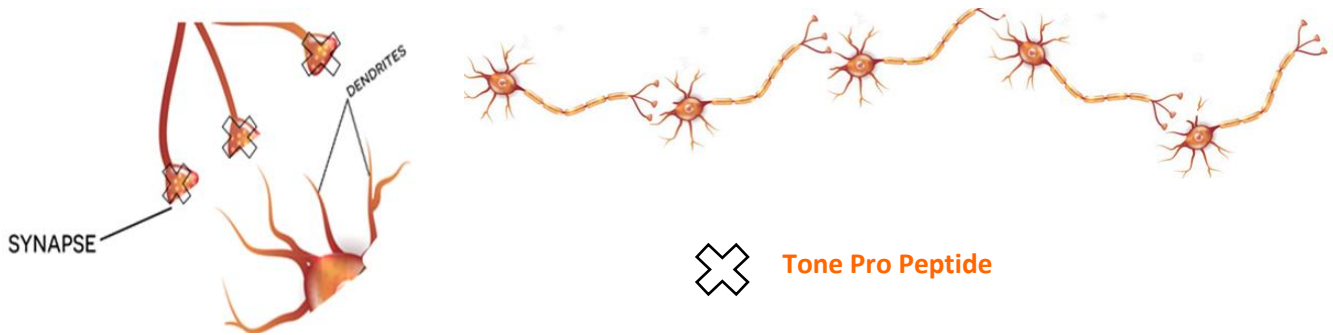
NEURON CELL



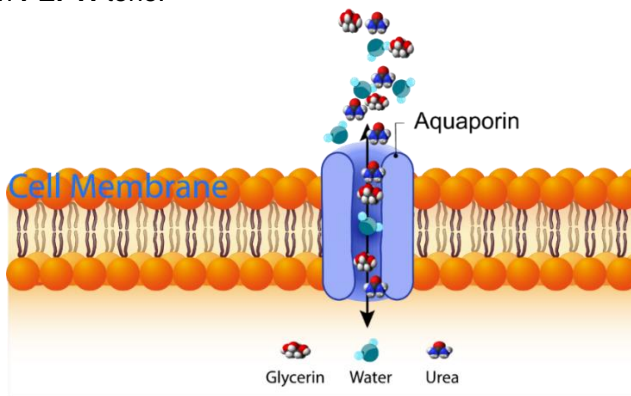
There is a gap between cells at the synapse and dendrite where acetylcholine \uparrow is released to an accepting receptor $\left(\bullet\right)$ on a dendrite of the next neuron cell completing the transfer of a chemical signal, enabling muscle contraction.



The actual science is far more complex; however, the result is the same. If a peptide can block the release of acetylcholine, it weakens messages from the brain to the muscle tissue. Muscles are unable to contract completely which softens expression lines.



Glycerin is one of three molecules (Glycerin | Urea | Water) that can travel through aquaporins in the cell membrane to hydrate *intra* and *intercellularly*. Glycerin adds the additional benefit of hydration for mature skin types in **PEPTI-tone**.



Hydrated skin cells are plumper and healthier (longer) as they rise to the surface prior to shedding.

Concerns with BotA

The largest concern with Botox (Bot-A) is migration. Injection in an incorrect location or migration can cause drooping eyes or other unwanted facial features. The patient must be careful to keep facial muscles still to prevent accidental movement of the injected product.

Common cosmetic peptides used to mimic pharmaceutical neurotoxins (Botox- Dysport, etc.)

- **Argireline®** – (Acetyl Hexapeptide-8) claims to prevent the release of the neurotransmissions from the brain through competing for a position on the N-terminal end of SNAP 25 in the SNARE complex. The amino sequence is Ac-Glu-Glu-Met- Gln -Arg-Arg- NH₂
- **Syn-Ake** – (Dipeptide Diaminobutyroyl + Benzylamide Diacetate) is a tripeptide derived from proteins in snake venom that reduce muscular contractions with a toxin, paralysis-like effect. It can cause swelling but is reversible. The amino sequence is β-Ala-Pro-Dab-NHBn-2Acetate.
- **Vialox** – (Pentapeptide 3-V), also derived from proteins extracted from snake venom. The amino sequence is Gly-Pro-Arg-Pro-Ala.

Concerns with Cosmeceutical Peptides

The concern with cosmeceutical peptide analogs is the lack of specificity of action when applied. The key is to engineer peptide complexes that are effective and target specific.

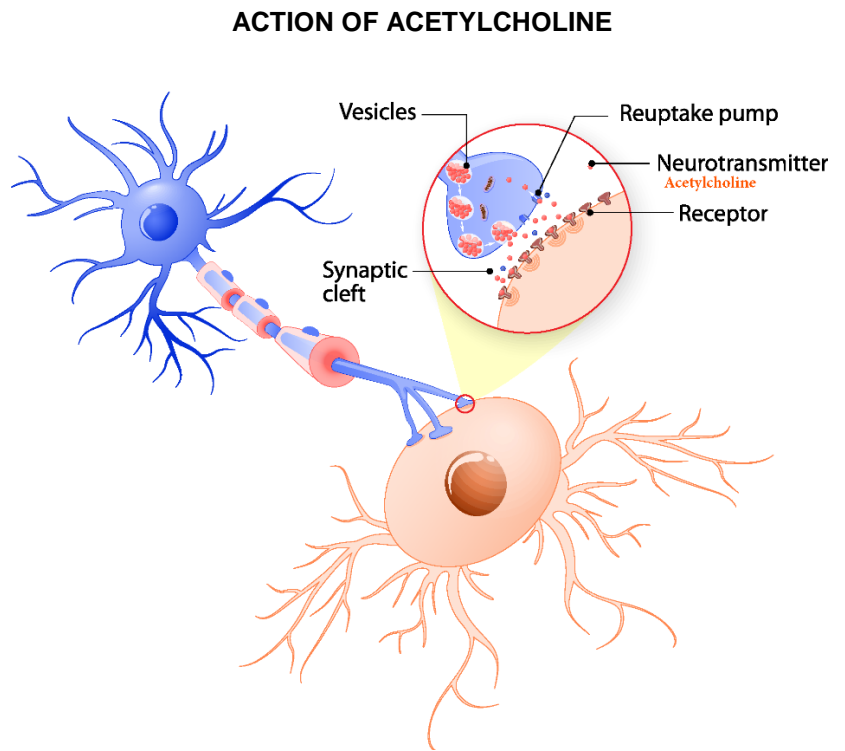
PEPTI-tone serum contains unique transdermal complexes, which are target specific.

VDA research finds the ANSWER

Research conducted at Viktorija De'Ann answered the question of how to make acetylcholine modulating peptide analogs effective.

- We discovered that certain peptides are not bioactive when applied directly to the skin. They require components to “turn on” the moderating effect on neurotransmissions.
- To make the sequence active, protecting molecules are associated with the **PEPTI-tone** complex. Added protection is important as peptides of this type are susceptible to intercellular matrix characteristics.
- Specificity is required for peptides to reach the proper target cells.
 - Acetylcholine modulating peptide analogs exhibit weak specificity which reduces functionality.
 - **PEPTI-tone** is a site-specific, sequence-binding hybrid peptide.
- Once the molecule binds to the target cell, the peptide can cleave off the complexes and seek the proper receptor.

This modification dramatically increase function. Patients often notice improving facial texture and reduction of wrinkle lines within 2-3 applications of **PEPTI-tone**.



Ingredients: Water, Propanediol, Glycerin, Arginine, Glutamine, Lysine, Valine, Asparagine, Aspartic Acid, Glutamic acid, Histidine, Proline, Serine, Xanthan Gum, Diazolidinyl Urea, Iodopropynyl Butylcarbamate, Glycine