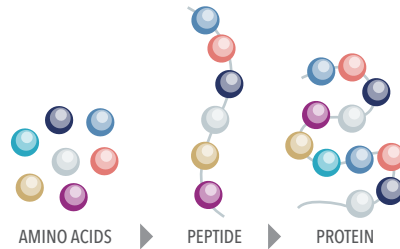
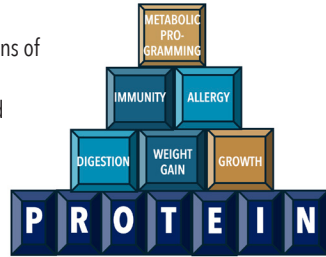


WHAT IS PROTEIN?

Proteins are naturally occurring substances in living organisms. They are composed of one or more long chains of amino acids joined together to make peptides.

PROTEINS ARE THE MAIN BUILDING BLOCKS OF OUR BODY:

- Essential for healthy growth & development
- Important for structural components of body tissues
- Influence major functions of the body
- Regulate metabolic and immune pathways



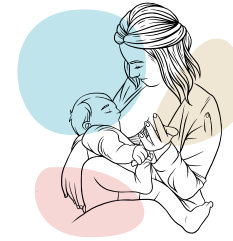
Check out 6:00 of the podcast to learn more

HOW HAVE PROTEINS EVOLVED?

Proteins in infant feeding have evolved for centuries. Formulas continue to evolve to be more like breastmilk, and to meet the needs of specific populations, like infants with cow's milk protein allergy (CMPA) who need a hypoallergenic formula.

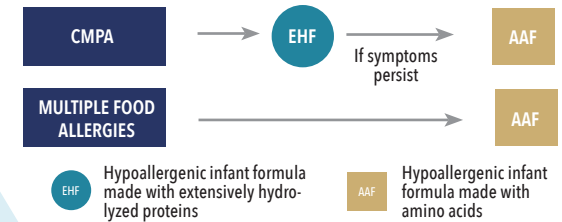


Milks have been adapted from one species to feed another since the 1800's.



GUIDELINES FOR MANAGING CMPA

The AAP requires hypoallergenic formulas to be shown with 95% confidence that 90% of children with CMPA will not react



Check out minute 25:20 & 35:40 of the podcast to learn more

BREAKING DOWN PROTEIN IN PEDIATRIC FOOD ALLERGY

PODCAST LEARN MORE!



INTERVIEW WITH THE EXPERTS

WHAT IS THE IMPORTANCE OF PROTEIN QUALITY?

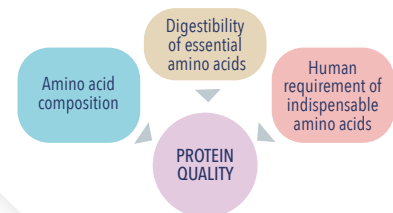
For a protein to be considered high-quality, the body needs to be able to break it down, digest it, and absorb its amino acids in the right amounts to support healthy growth, body composition & functions.

PROTEIN QUALITY DEPENDS ON:

- Amino acid composition
- Digestibility
- Effective Utilization

DIGESTIBILITY OF PROTEINS IS AFFECTED BY:

- Size
- Structure
- Solubility



Check out 9:00 & 12:45 of the podcast to learn more



High quality whey protein source



Broken down with hydrolysis



Ultra-filtered to remove residual proteins



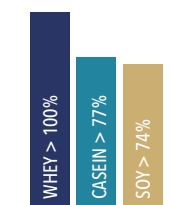
Low potential to cause allergic reaction



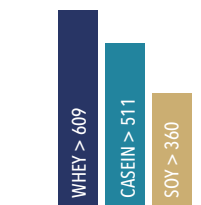
For babies with CMPA

EXTENSIVELY HYDROLYZED WHEY PROTEIN:

- High quality protein, rich in essential and branched-chain amino acids
- Easy to digest
- Supports growth & tolerance
- Palatable, less bitter than hydrolyzed casein
- Hypoallergenic



BIOLOGIC VALUE (BV)
% Nitrogen retained of nitrogen absorbed

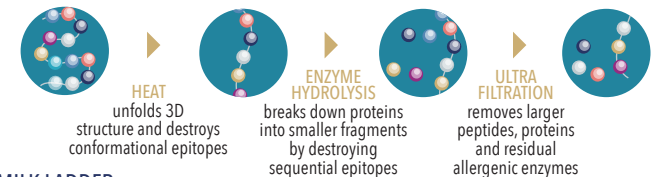


ESSENTIAL AMINO ACID CONTENT
mg of essential aa/gram protein

HOW CAN PROTEIN ALLERGENICITY BE REDUCED?

Processing, like homogenization and hydrolysis and heat, can change the structure and allergenicity of proteins by destroying epitopes, antigens recognized by the immune system, and decreasing allergenicity.

BREAKING DOWN PROTEINS IN HYPOALLERGENIC FORMULA



MECHANISM OF THE MILK LADDER A METHOD TO INDUCE TOLERANCE



UNCOOKED MILK

BAKING (with varying degrees of heat) alters the structure of milk allergens, reducing allergenicity because of the destruction of conformational epitopes



BAKED MILK

GRADUAL INTRODUCTION of denatured epitopes of baked milk proteins in foods promotes the production of the antibody helpful in promoting tolerance to cow's milk proteins



MILK TOLERANCE

REGULAR CONSUMPTION of baked milk products can decrease IgE levels and may help induce tolerance of milk proteins as the degree of allergenicity increases in the diet

Check out 43:15 & 57:25 of the podcast to learn more