IMMUNE SUPPORT

SP Children's™ Immune

Everyday support for young immune systems

Offers an excellent source of vitamin D, zinc, and antioxidant vitamin C

Children's™ BY STANDARD PROCESS®

Help Kids Stay Healthy with **SP Children's™ Immune**

Delivers key nutrients that help the body support a healthy immune system*

As a health care professional, you know the importance of the immune system. It is responsible for keeping out foreign substances, protecting the body, and helping maintain wellness through a person's lifespan. When nutrition is poor, a healthy immune response can be compromised.[1] On the other hand, consuming adequate amounts of essential nutrients is crucial to the immune response's function and development.[1]

That's why **SP Children's™ Immune** — the first children's product from Standard Process — is a supplement for kids ages 4 and older that delivers key nutrients for proper immune system functioning and development.*

SP Children's™ Immune

Suggested Use: For children ages 4 and older, chew two wafers per day.

- Supports the immune system*
- Excellent source of vitamin D, zinc and antioxidant vitamin C
- Contains prebiotic 2'-FL and bovine colostrum
- Chewable supplement

GF NON SOY

Draws flavor from organic ingredients: elderberry and whole strawberry

Includes organic beet root from the Standard Process certified organic farm**

**Ingredients that are not grown on our farm, or if our supply is short, are sourced from certified organic farms.
SP Children's™ by Standard Process® products labeled as **Gluten-Free** have been tested to verify they meet the regulations associated with the United States Food and Drug Administration's gluten-free labeling. SP Children's™ by Standard Process® products labeled as **Non-Soy** or **Non-Soy Formula** have been formulated to not contain soy or soy-derived ingredients.

Vitamin C, Vitamin D, and Zinc: Where Immune Systems Get Their Strength

Vitamin C, vitamin D, and zinc are vitally important for the immune system throughout all life stages, including childhood.[1] **SP Children's™ Immune** is an excellent source of all three.

Vitamin C helps support immune system defense by enhancing innate immune pathways. It also supports adaptive immunity through differentiation and proliferation of B- and T- lymphocytes.[2]

Vitamin D assists immune function by serving as a regulator while promoting phagocytosis and superoxide synthesis.[1] Low vitamin D status has been identified as a risk factor for compromised immune function and may contribute to the chances of a poor immune response to environmental challenges.[3,4]

Zinc plays a role in immune responses, and adequate status helps the body during immune system challenges.[5] It also assists in immune cell function.[6-11] It's especially important for children, where adequate status helps the body during immune system challenges.[5]

Contains **Prebiotic 2'-FL**

The largest immune organ in the body is the GI tract. Its barrier function is a key immune function, and it is where a substantial amount of immune cells are housed.[12]

SP Children's™ Immune contains 2'-FL: a novel prebiotic carbohydrate that is derived from a microbial fermentation process to be structurally equivalent to human milk. Because it is able to resist digestion, it can effectively reach the lower GI tract[13-16] where it is broken down to feed the growth of beneficial microbes.[16-21*^]

Colostrum for Dietary Immunoglobulins

SP Children's™ Immune contains 500mg of bovine colostrum, standardized to deliver concentrated immunoglobulins (specifically IgGs) from a whole food source (cow's milk).

As part of the immune system, immunoglobulins support a normal, healthy immune response in the GI tract.[22] As dietary additions, these have been used as nutritional support for the immune system in the gastrointestinal tract.[23] Studies in children have used formulations with bovine colostrum to provide immune system support.[24, 25]

^To date, shown in multiple animal studies, infants, and one adult human study.

*These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any disease.

Synergistic Products for Holistic Support

Catalyn® Chewable

GENERAL WELL-BEING

Contains vital nutrients from whole foods and other sources*

Whole Food Fiber

HEALTHY REGULARITY*

Good source of fiber from nutrient-rich whole foods

Calamari Omega-3 Liquid

BRIDGES OMEGA-3 DIETARY GAP*

Supports general health and the body's natural inflammatory response function*

Immune System Development

Throughout a person's lifespan, the immune system is responsible for keeping out foreign substances and protecting the body. Though it is often thought of as a singular system, it actually consists of two separate sub-systems: innate immunity, and adaptive immunity.[26]

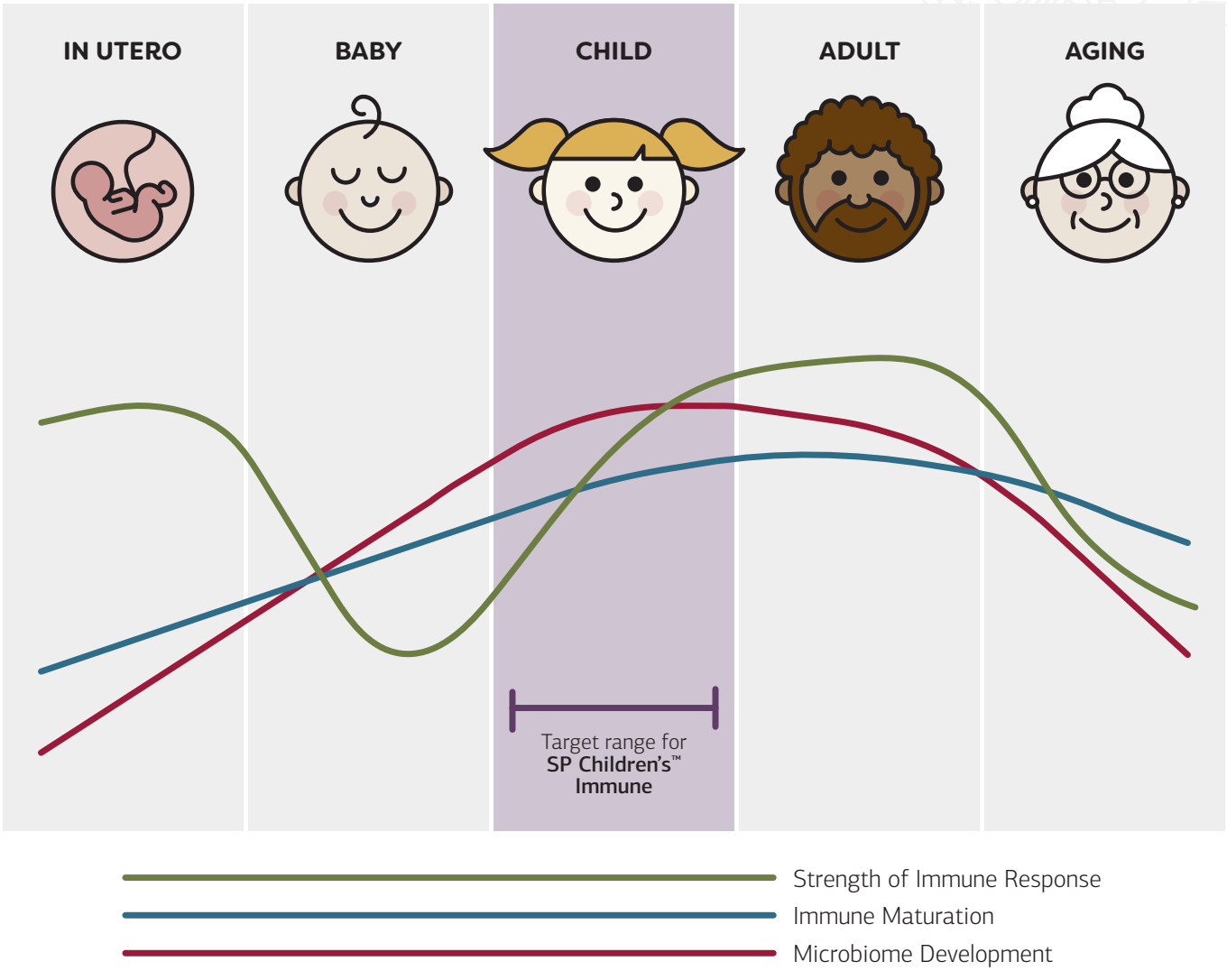
Critical early protection in babies is transferred directly from mothers, but when that fades, children rely on an immature immune system. It develops stronger and stronger immune responses until it peaks in adulthood before once again waning as old age is reached.[27]

Because children have naive adaptive immune systems, they tend to rely more on their innate system (which is often fully functional by two years of age) than an average adult.[27, 28]

Following initial innate responses, the fragments left from an environmental challenge are then presented to the adaptive immune system cells to ultimately develop long-lasting memory.[27, 28] Ensuring the proper concentration of macro- and micronutrients is critical for a child's health, and prepares it for future encounters.[1]

The gut microbiota starts off as a nearly blank slate at birth, with its diversity then steadily increasing as we continue to be introduced to new microbes from the environment.[27, 28] Interacting with different microbes in the GI allows our body to learn how to distinguish friends from foes and support healthy relationships in the future.[17]

Immune Development Over Time[27, 28]



Changing Lives *for the* **Next Generation**

Since 1929, Standard Process has been trusted to advance health through high-quality, whole food-based nutrition. With **SP Children's™** products, we're extending our whole food philosophy to help kids develop their growing body systems.

At Standard Process:

- We grow ingredients on our certified organic farm in Wisconsin
- We're serious about quality
- We make products to support the health of the whole family
- We partner with health care professionals
- We're dedicated to supporting the body's interrelated systems

1. Calder PC. Proc Nutr Soc. 2013 Aug;72(3):299-309. doi: 10.1017/S0029665113001286.
2. Carr AC, Maggini S. 2017;9(11):1211. doi: 10.3390/nu9111211.
3. Esposito S, Lelii M. 2015;15(1):487. doi: 10.1186/s12879-015-1196-1.
4. Wayse V, Yousafzai A, Mogale K, Filteau S. 2004;58(4):563-7. Epub 2004/03/26. doi: 10.1038/sj.ejcn.1601845.
5. Bhatnagar S, Natchu UCM. 2004;71(11):991-5. doi: 10.1007/BF02828114.
6. Shankar AH, Prasad AS. 1998;68(2 Suppl):447s-63s. Epub 1998/08/13. doi: 10.1093/ajcn/68.2.447S.
7. Rink L, Gabriel P. 2000;59(4):541-52. Epub 2000/01/11. doi: 10.1017/s0029665100000781.
8. Gao H, Dai W, Zhao L, Min J, Wang F. 2018;2018:6872621. Epub 2019/01/10. doi: 10.1155/2018/6872621.
9. Maywald M, Wessels I, Rink L. 2017;18(10). Epub 2017/10/25. doi: 10.3390/ijms18102222.
10. Wessels I, Maywald M, Rink L. 2017;9(12). Epub 2017/12/01. doi: 10.3390/nu9121286.
11. Maggini S, Pierre A, Calder PC. 2018;10(10):1531. doi: 10.3390/nu10101531.
12. Di Bartolomeo F, Startek JB, Van den Ende W. 2013;27(10):1457-73. doi: 10.1002/ptr.4901.
13. Milani C, Duranti S, Bottacini F, Casey E, Turroni F, Mahony J, et al. MMBR. 2017;81(4):e00036-17. doi: 10.1128/MMBR.00036-17.
14. Underwood MA, Gaerlan S, De Leoz MLA, Dimapasoc L, Kalanetra KM, Lemay DG, et al. 2015;78(6):670.
15. Elison E, Vigsnaes LK, Rindom Krogsgaard L, Rasmussen J, Sorensen N, McConnell B, et al. Br J Nutr. 2016;116(8):1356-68. Epub 2016/10/22. doi: 10.1017/S0007114516003354.
16. Iribarren C, Törnblom H, Aziz I, Magnusson MK, Sundin J, Vigsnæs LK, et al. 2019;156(6):S-242. doi: 10.1016/S0016-5085(19)37409-8.
17. Elison E, Vigsnaes LK, Rindom Krogsgaard L, Rasmussen J, Sorensen N, McConnell B, et al. 2016;116(8):1356-68. Epub 2016/10/22. doi: 10.1017/S0007114516003354.
18. Bai Y, Tao J, Zhou J, Fan Q, Liu M, Hu Y, et al. 2018;3(6):e00206-18. doi: 10.1128/mSystems.00206-18.
19. Sela DA, Mills DA. 2010;18(7):298-307. Epub 04/19. doi: 10.1016/j.tim.2010.03.008.
20. Matsuki T, Yahagi K, Mori H, Matsumoto H, Hara T, Tajima S, et al. 2016;7:11939-. doi: 10.1038/ncomms11939.
21. Asakuma S, Hatakeyama E, Urashima T, Yoshida E, Katayama T, Yamamoto K, et al. 2011;286(40):34583-92. Epub 08/09. doi: 10.1074/jbc.M111.248138.
22. Lefranc M-P, Lefranc G. Academic press; 2001.
23. Gapper LW, Copestake DEJ, Otter DE, Indyk HE. 2007;389(1):93-109. doi: 10.1007/s00216-007-1391-z.
24. Patıroğlu T, Kondolot M. 2013;7(1):21-6. Epub 2011/08/02. doi: 10.1111/j.1752-699X.2011.00268.x.
25. Ulfman LH, Leusen JHW, Savelkoul HFJ, Warner JO, van Neerven RJJ. Front Nutr. 2018;5:52-. doi: 10.3389/fnut.2018.00052.
26. Chaplin DD. J Allergy Clin Immunol. 2010;125(2 Suppl 2):S3-S23. doi: 10.1016/j.jaci.2009.12.980.
27. Simon A. Katharina, Hollander Georg A. and McMichael Andrew 2015 Proc. R. Soc.B.282201430852014308 5http://doi.org/10.1098/rspb.2014.3085
28. Lloyd CM, Marsland BJ. 2017;46(4):549-61. doi: https://doi.org/10.1016/j.immuni.2017.04.005.

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