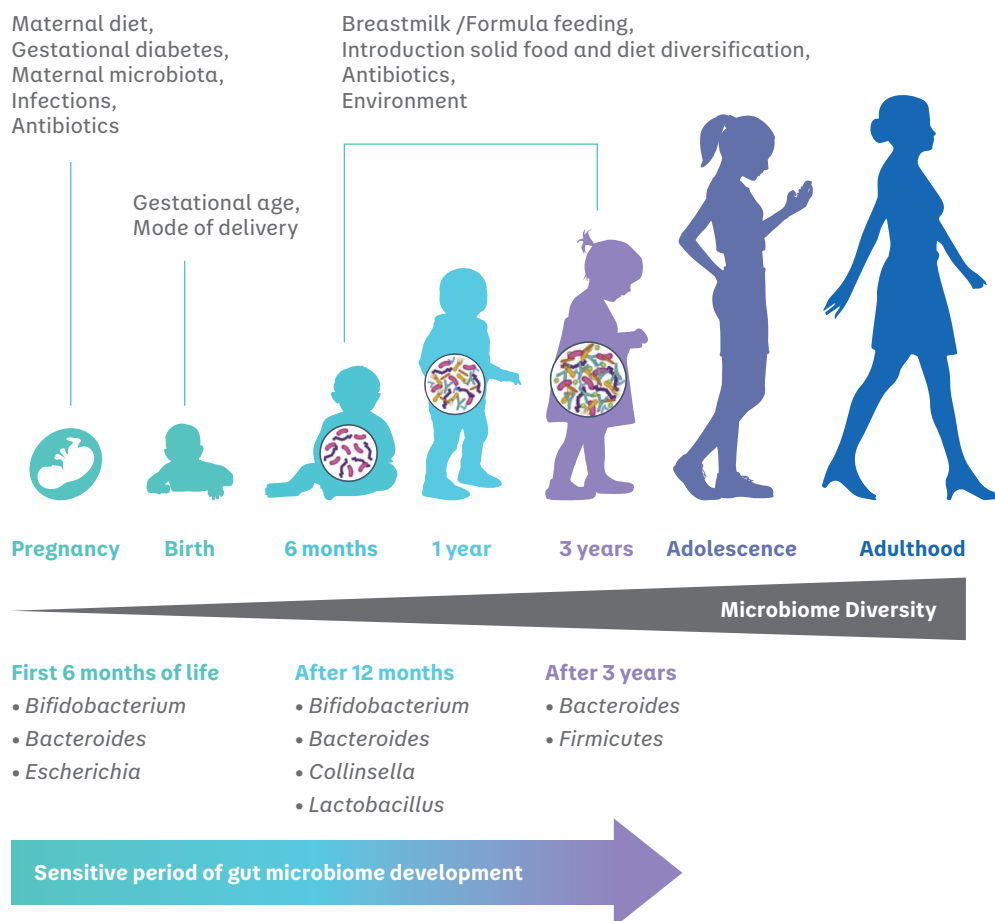


# FIBERS FOR GUT HEALTH PROMOTION AND FOR CLOSING THE FIBRE GAP IN TODDLERS

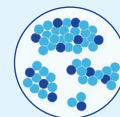


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## Development of healthy gut microbiota in the early years.<sup>1-3</sup>



## Role of Biotics<sup>4</sup>



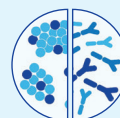
### Prebiotics

Food for 'beneficial bacteria'



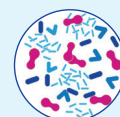
### Probiotics

'Beneficial bacteria'



### Synbiotics

Combination of food for 'beneficial bacteria' and 'beneficial bacteria'



### Postbiotics

Compounds created by and from 'beneficial bacteria'

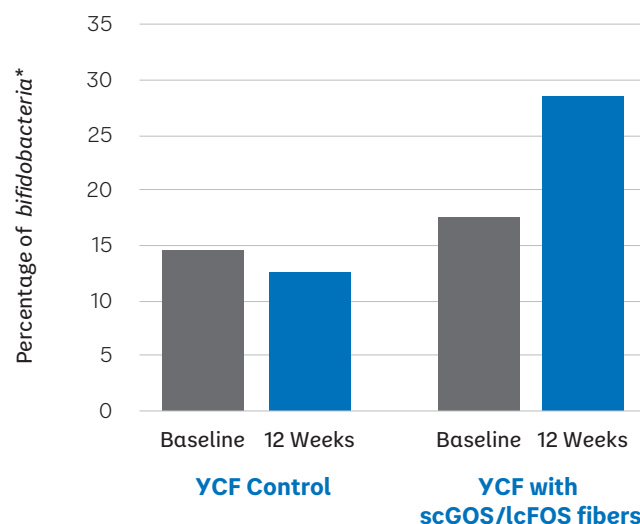
## Prebiotic fibres play a role in improving gut microbiome and immunity.<sup>5</sup>

Studies in toddlers using Young Child Formula (YCF) containing relevant amounts of prebiotic fibres (scGOS/lcFOS), in combination with other ingredients like vitamin D, iron, LCPUFA, probiotics and protein, have demonstrated positive outcomes:

- 1. Gut microbiome:** Increased *bifidobacteria* and lower gut pH
- 2. Immunity:** Reduced risk of infections\*

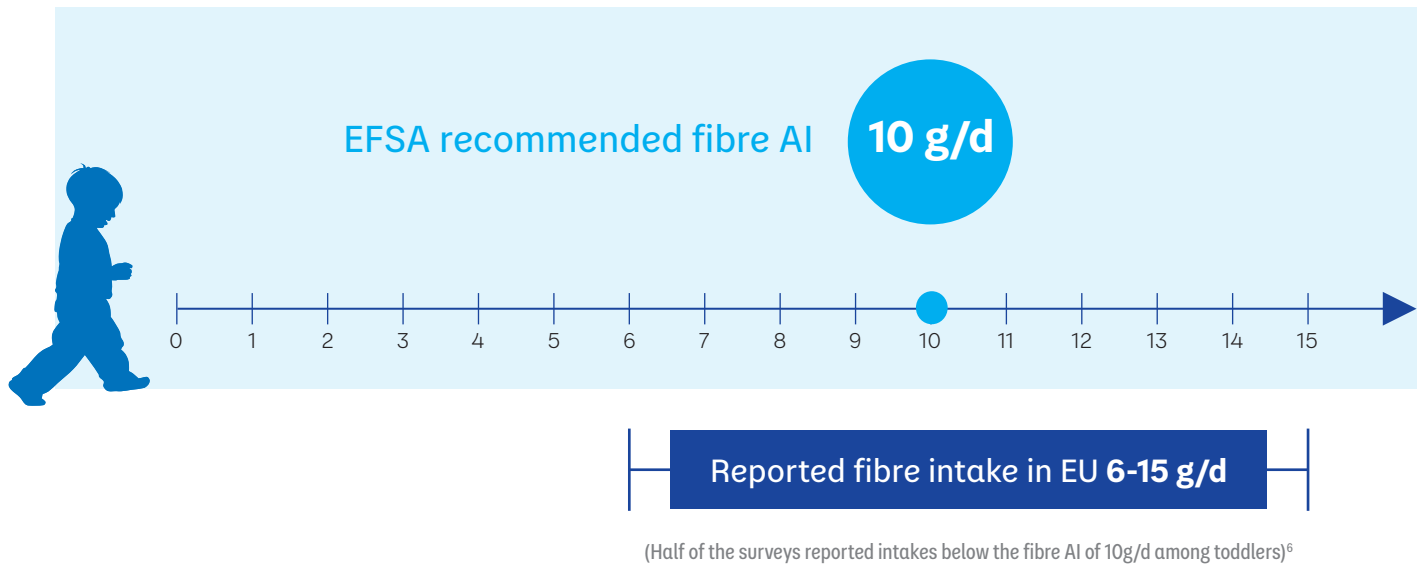
\*study done with YCF containing prebiotic fibres in combination with DHA/EPA

## Bifidogenic effect

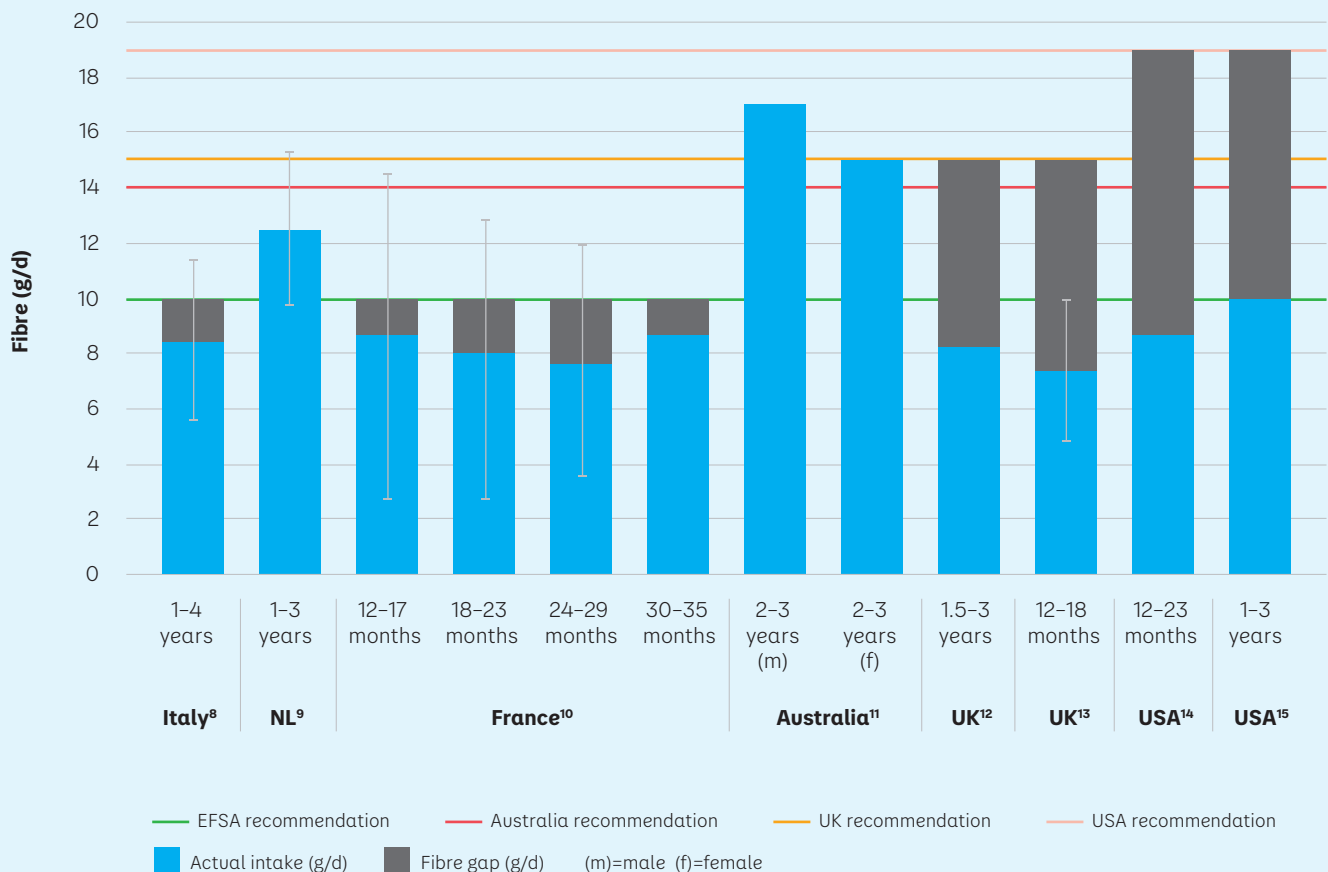


## Fibre intake gap in toddlers

There is a gap between recommended adequate intake (AI) and actual consumption of fibre in Europe.<sup>6</sup> It may also be difficult to consume enough fibre while staying under the day's caloric limit.<sup>7</sup>



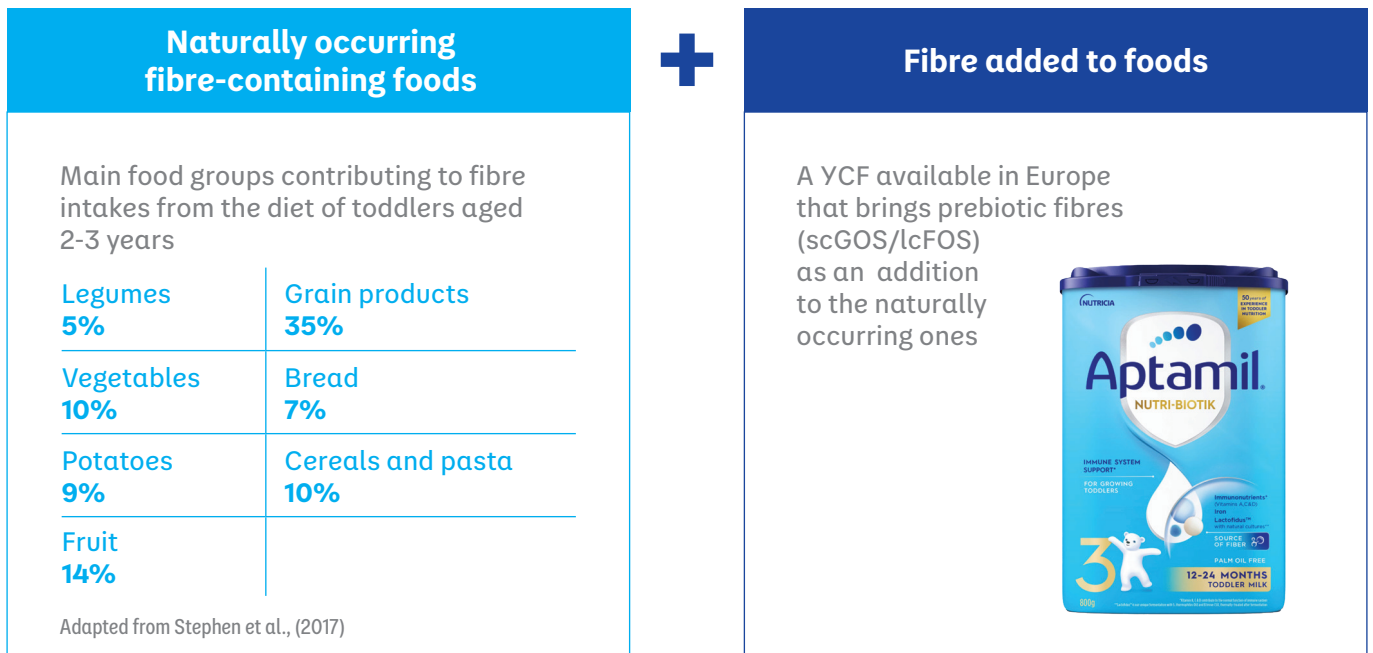
## Dietary fibre intakes in toddlers globally



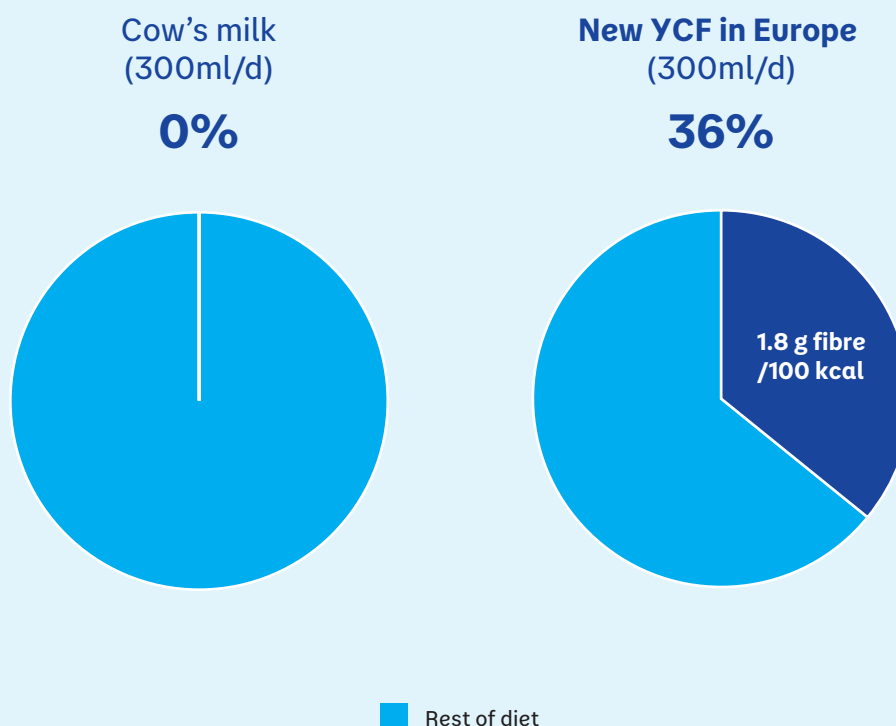
Overview of dietary fibre intake in toddlers compared to the recommended fibre intake across several countries, genders and toddler age categories. Based on studies from 2010 onwards.

## A two-pronged approach for increasing fibre intake<sup>7</sup>

There is a need to add fibers to foods along with those occurring naturally in foods to fill fibre intake gaps.<sup>6</sup>



## The new YCF formula contributes to 1/3<sup>rd</sup> of toddler adequate intake (AI) of fibre





**The fibre intake in toddlers can be helped by adding YCF with extra fibres to the diet. These extra fibres can promote gut health and can bridge the fibre intake gap.**

scGOS/lcFOS: short chain galactooligosaccharides and long chain fructooligosaccharides; LCPUFA: Long-chain polyunsaturated fatty acids; DHA: docosahexaenoic acid; EPA: eicosapentaenoic acid.

**References:** **1.** Derrien M, et al. Trends microbiol. 2019 Dec 1;27(12):997-1010. **2.** Lozupone CA, et al. Nature. 2012 Sep 13;489(7415):220-30. **3.** Wopereis H, et al. Pediatr Allergy Immunol. 2014 Aug;25(5):428-38. **4.** Salminen S, et al. Nutrients. 2020 Jun 30;12(7):1952. **5.** Rezaiki L, et al. Paper presented at: International Symposium of Probiotics Prebiotics in Pediatrics (IS3P); Istanbul; February 24–26, 2012. **6.** EFSA Panel on Dietetic Products, Nutrition and Allergies. EFSA Journal 2013;11(10):3408. **7.** Jones JM. Nutri J. 2014 Dec;13(1):1-0. **8.** Verduci et al., 2019. **9.** Brunner et al., 2018. **10.** Gubbels et al., 2014. **11.** Chouraqui et al., 2020. **12.** Australian Institute of Health and Welfare, 2018. **13.** Public Health England & Food Standards Agency, 2014. **14.** Lennox et al., 2014. **15.** Ahluwalia et al., 2016. **16.** Bailey et al., 2021. **17.** Gibson GR, et al. Nat Rev Gastroenterol Hepatol. 2017 Aug;14(8):491-502.



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