



Research on advanced gut health probiotics

Research on the formulation

The research that we cite for our **advanced gut health probiotics** is research at the species level. advanced gut health probiotics are formulated by a team of microbiologists who look at available research at the species level and craft the formula to provide health benefits based on strains of the species.

- **advanced gut health probiotics** 15 & 50 billion CFU were crafted with a balance of lacto and bifidobacteria that mimics the ratio found in the gut
- **advanced gut health probiotics women's DAILY** is crafted with carefully chosen and balanced strains to strengthen gut flora and support vaginal and immune system health.
- **advanced gut health probiotics women's UTI** is made with carefully chosen and balanced strains to strengthen a woman's gut flora and support urinary tract and immune system health.
- **advanced gut health probiotic women's MOOD** is made with carefully chosen and balanced strains to strengthen a woman's gut flora and support emotional and immune system health.

advanced gut health probiotics are crafted with multi-strains in a *balanced* formula because multi-strain formulas have been shown to be more effective than single strains. It's worth pointing out that some other manufacturers may claim to formulate with research-proven strains, but the strains are included in the overall formula in very small amounts.

...but what about researched strains? Research-proven strains can look great on-pack, but there are some cases where the strains are proven to provide a benefit that may not even be of benefit to the consumer. For example, prevention against *C. difficile* bacteria in a community hospital.

Research on the capsule & delivery

There are two other studies that we reference when we talk about how our delayed-release capsule resists stomach acid, arriving to the gut 45 minutes later than standard capsules, and can deliver up to ten times the bacteria to the gut:

- The unique polymer properties in our delayed-release caps were designed to resist acid in order to protect nutritional ingredients from full release and disintegration in the stomach and allow for complete dissolution in the intestine. We reference a study (Marzorati et al, 2014) that used simulated gastrointestinal conditions to evaluate the dissolution of probiotics. The results found that the capsules delivered 10x the bacteria to the gut under fasted conditions, and 4x the bacteria to the gut when probiotics were consumed with food.
- An independent study was commissioned to conduct a gamma scintigraphic in vivo (human) study. This human clinical study (Amo, Robert 2014) was designed to evaluate the disintegration behavior of our delayed-release capsules in human subjects. Completed in spring 2013, the study documents through images and data the success of our delayed-release capsules' resistance to stomach acids for delivery of ingredients. Data and images from the study show radiolabeled release began at a mean time of 52 minutes when the capsules were about to leave the stomach and a full 45 minutes later than a typical immediate release capsules. Hence, for the majority of subjects in the study, complete release took place in the intestine.

It's worth pointing out that at Genuine Health, we're all about transparency, but there are some times when we can't share our formula, or in this case the technology that we use, for proprietary reasons. This is why you won't find links to the studies that we reference when we are talking about our capsules.

Pulling it all together with advanced gut health probiotics

When we set out to break into the market with a probiotic, we wanted to create a stronger probiotic that would make people *feel* the difference. We looked at the research, and worked with microbiologists to craft the ultimate probiotics:

- **FORMULA** – We thoughtfully formulated advanced gut health with 15 strains. Why? Because 75% of the cases where studies evaluated multi-species formulas vs. individual species, the multi-strain formula was more effective. Strains were carefully selected by looking at evidence at the species level, rather than choosing a studied-strain that may not provide broad spectrum benefits.
- **TRUE VERIFICATION OF STRAINS** – Each of our strains has a number assigned by an International strain bank as well as by our regulatory body in Canada, the Natural and Non-prescription Health Products Directorate (NNHPD). We have production records of each lot cataloguing the usage of these strains and also their traceability. We submit all of our strains to third party verification for their true identification at the DNA level and keep the certificates on file for each strain. Additionally, each strain we use has

been sent to an international strain bank in Belgium. This bank acts as custodian of our strains and independently validates the purity and viability of each of our strain on annual basis.

- **ADDITIONAL ACTIVE INGREDIENTS** – When necessary, we add research-proven ingredients to bolster our formulas for specific effects. For example, advanced gut health probiotic women’s MOOD is formulated with 10 grams of Extramel™. Extramel™ is a proprietary melon juice concentrate rich in super oxide dismutase (SOD). SOD is a main enzyme providing anti-oxidant defense to the body. A randomized, double blind, placebo controlled trial found 10mg of Extramel™ significantly improved signs and symptoms of stress and fatigue compared to placebo (Milesi et al., 2009).
- **HIGHLY CONTROLLED PROCESS** – The strains are cleaned in a temperature- and humidity-controlled environment, which removes toxins and weak cells for an allergen-free, stable and pure probiotic blend.
- **TARGETED DELIVERY OF HEALTHIER, HEARTIER STRAINS** – Our vegan, delayed-release capsule has been shown to deliver the strains to the gut where they thrive.
- **SHELF STABLE BLISTER PACK** – All advanced gut health probiotics are room temperature stable, and we test the CFU *after* the probiotics have been packaged to ensure that the label claim will guaranteed at expiry.
- **ALWAYS INNOVATING** – We conduct analyses to ensure that our probiotics WORK, and make tweaks when necessary to ensure that they provide the maximum benefit to you! For example, in stability studies, we found that our probiotics contained more viable strains without our fermented prebiotic—so we removed it from the formula.