

Understanding pH

Saliva pH is the most relevant in the following measurements. It reflects tissue acidity; our nemesis (robs oxygen, irritates the nervous system, and predisposes us to fungus or rot). Saliva pH is difficult and slower to change than urine pH, which reflects the bodies varying degrees of ability to deal with the acidity. Saliva = what we keep. Urine = what we excrete. Desired range of first morning baseline saliva pH is 6.8-7.2. Desired range for healthy first morning urine is 5.8-6.2; during detox first morning urine pH should be 5.5-5.8.

How long do I need to give my child Liver Life™?

Liver Life™ should be used until the saliva pH has stabilized between 6.8 and 7.2. Once the pH balance is restored, continue to monitor pH by occasionally (every 2 weeks) testing saliva and urine. This helps to insure the pH is staying in optimal range. Supporting the liver throughout your child's detox protocol is essential to a successful outcome.

Why does the Liver Life™ protocol say that I need to decrease other supplements as I ramp up the dose?

When the liver is working properly we are more efficient at assimilating nutrients from food. A concentrated supplement may suddenly become too much for your child. During the first week, as you ramp up the dose of Liver Life™, it may be necessary to decrease additional supplements. Our clinical research has shown when the mineral and vitamin supplement doses are reduced by half, children experience more significant gains.

About BioRay, Inc™

BioRay™ utilizes the extraordinary balance of nature and science to create whole food supplements that support health, vitality and our environment. BioRay™ products are manufactured by integrating clinically tested ingredient technologies along with proprietary methods; maximizing product safety and efficacy. Committed to quality and maintaining the integrity of each formula, we blend our products in small, personally attended batches. To guarantee purity and potency, all of our products are analyzed by third party laboratories. BioRay™ is dedicated to making a fundamental difference within the ASD community, through education, research and product development.

*These statements have not been evaluated by the FDA. This product is not intended to diagnose, treat, or cure any disease.



Liver Life™

An Herbal Supplement

Promotes and restores healthy liver function. *



“ I would rank Liver Life™ in the top 3 things we have tried on our biomedical journey. Jason has made progress/gains in cognition, speech, interaction, calmness.”

-Kathleen Den Bleyker,
mom to 5 year old

Why Use Liver Life™?

It is an unfortunate fact of modern life that we live in a polluted world and that these toxins are absorbed into the body's cells. Eliminating these toxins is important to everyone's health and well being. The inability to process and eliminate these toxins can result in debilitating and chronic illnesses. Of primary concern are the status of Phase 1 & 2 Liver Detoxification Pathways and the ability to eliminate acids via the urine

LiverLife™ helps drain acids from the body, which greatly assists with restoring the alkaline reserve. When the alkaline reserve is stable and the daily production of metabolic acids can be eliminated, we are also more stable. This makes us less susceptible and sensitive to the changes around us and in us. Liver Life™ provides a concentrated source of Beta 1-3 and 6 glucans, and also helps normalize liver enzymes and restore liver function.

Independent Laboratory Test

Test	Baseline Lab Test	Post Lab Test	Normal Value Range
Alk. Phos.	171	69	30 - 90
GGT	153	48	11 – 43
SGOT/AST	76	24	0 – 37
SGPT/ALT	154	41	0 – 40
Eosinophils	5.1	1.9	0.6 – 4.6

All liver markers for patient above were outside of normal ranges. After being on only Liver Life™ and NDF™, patient experienced symptomatic improvements with liver enzymes test corroborating the results.

What positive changes should I expect to see in my child?

As a result of adding Liver Life™ to their child's detox protocol parents have reported better social skills, communication, appropriate speech, more focus, improved comprehension, ability to do school work, much more calm, consistency in day to day abilities, better absorption of nutrients from foods which enables them to decrease mega doses of vitamins and minerals, decrease in food sensitivities, and better stools.

“I have found Liver Life™ to be one of the most effective supplements for liver restoration.” -Dr. Roger Billica, MD

Do I have to use NDF Plus™ for Liver Life™ to work?

No. Liver Life™ is effective as a single remedy. For the most effective detox, we do recommend beginning your child's detox protocol with Liver Life™ followed by NDF Plus™.

Can I give Liver Life™ at the same time as my child's other supplements?

Yes, you can. However, for maximum efficacy give Liver Life™ 15-20 minutes before other supplements or meals.

If my child's pH is in range, can he still benefit from Liver Life™?

Yes. In addition to restoring pH, Liver Life™ decongests the kidneys and liver, normalizes liver enzymes and restores liver functions. Better eye contact, speech, comprehension, social skills, ability to focus, better moods, and increase in conversations has been reported from parents giving Liver Life™ even though their child started with a healthy pH.

If my child's pH is in range with 2 drops of Liver Life™, do I continue to ramp up the dose?

We've noticed that increasing the dose of Liver Life™ even after the pH's are in range has enabled children to make additional gains. Continue to test the urine pH as you ramp up the dose of Liver Life™.

Where can I buy pH strips?

You can purchase pH strips from BioRay or your local pharmacies. Get the pH strips that break the readings down into smaller increments. For example: 6.0, 6.25, 6.5, 7.0.

Ingredients in Liver Life™:

Himmematsutake, Red Root, Milk Thistle, Olive Leaf, Coriolus Versicolor, Ganoderma Lucidum, Grifola, Purified Water and Alcohol (grain neutral spirits); 20 % by volume.

Shelf Life and Safety:

3 year shelf life. All of our formulas have been tested in clinic with hundreds of patients. We use live, organic, and wild crafted herbs in all of our products.

What other things can I do to help restore my child's pH?

Many foods can assist in restoring your child's pH. Fresh squeezed lemon juice is one of the most effective alkaline forming foods. For additional alkaline forming foods you can email: info@healingedge.net for a list.

You can also supplement with sodium, potassium, calcium and magnesium, please consult with your child's practitioner for the appropriate dosage. Mineral waters are an easy way to support a healthy pH, also using an alkaline booster like Alkazone.



Intake Instruction Card:

1.) Test first morning urine pH. If pH is above 5.5, start Liver Life™. Desired range is 5.5 - 5.8. If pH is lower than 5.5, give enzymes with minerals and Liver Life™.

2.) Start Liver Life™ at 1 drop, twice a day. Ramp up by one drop per day.

Example: **Day 1** – 1 drop in am, 1 drop in pm, **Day 2** – 2 drops in am, 1 drop in pm, **Day 3** – 2 drops in am, 2 drops in pm, **Day 4** – 3 drops in am, 2 drops in pm.

3.) Once the first morning urine pH is between 5.5 - 6.2, add in the NDF Plus™ (Follow Children's Brochure for dosing instructions).

What is the maximum dose of Liver Life™ I can give my child?

40 pounds or less-

Maximum dose is 30 drops a day.

(15 drops, twice a day)

40-75 pounds-

Maximum dose is 4 dropperful a day.

(2 dropperful, twice a day)

75 pounds or more-

Maximum dose is 6 dropperful a day.

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Maximum dose should not be given as the starting dose of Liver Life™.



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Additional Ph Information:

- 1.) If the first morning, baseline, un-medicated urine (you only do a baseline the first time, before the first dose) is above 5.8, and the saliva is below 6.8 or above 7.4 = start LiverLife™.
- 2.) If the urine pH is below 5.8 and the saliva pH is out of range, start LiverLife™ – but more slowly (a smaller dose less frequently) and with the use of digestive enzymes and a multi-mineral per the guidelines below.
- 3.) If the saliva is at 7, and the urine is above 5.8, wait a day or two and test again. The alkaline urine may be a temporary reaction to an acidic meal or emotional event the night before and not reflective of liver detox pathway dysfunction.
- 4.) If the saliva pH is above 7.4 use Kelp or Dulce* as the mineral supplement, which can be sprinkled on food instead of salt.
- 5.) While on LiverLife™, if the urine pH is hovering around the 5.5 mark, adding in digestive enzymes (Wobenzyme or Biozyme*) and minerals (potassium citrate* is one of the few which is low in heavy metals) will assist with easing the process and speeding up replenishing the alkaline reserve. Alkaline ash vegetables, veggie broth, also assist.
- 6.) If the urine pH drops below 5.5 lower the dose. Eliminating so much acid too fast will be hard on the system.
- 7.) If both pH's are above normal, also give 1) lemon in water (or salad dressing) during the day if the local water is soft (low minerals) or 2) raw unfiltered apple cider vinegar in water (or salad dressing) if the local water is hard (high minerals, calc forms in cooking pots, itch after a shower). If both pH's are below normal, give a little Alkala (bicarb of soda, no aluminum) in water. Both of these last suggestions are in addition to the above specifics.
- 8.) Adjust your dose so that the first morning urine is between 5.5 and 5.8 during detox. Increasing the dose lowers the number, and increases the rate of excretion of the acids.
- 9.) If the urine pH is at 5.8, but the saliva is staying out of range (<6.8, >7.2) resume the Liver Life™ as more acids need to be drained.



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