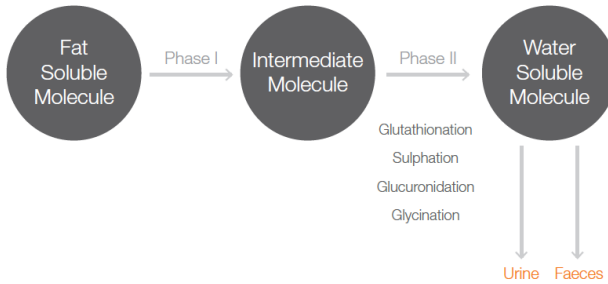


# Functional Liver Detoxification Profile

## Liver Detoxification Pathways

### Phase I and II Detoxification



One of the major roles of the liver is detoxification. It works to convert fat-soluble toxins into water soluble substances that can be excreted from the body. It does this via a two-step process designated **phase I** and **phase II**.

When the function of the liver is sub-optimal, toxins can build-up and poison the body.

Conditions that may be associated with an imbalance in liver function include:

- ✓ Adverse drug reactions
- ✓ Autism
- ✓ Cancer
- ✓ Chronic fatigue
- ✓ Digestive complaints
- ✓ Food intolerances
- ✓ Dysfunction of the immune system
- ✓ Fibromyalgia
- ✓ Headaches or migraines
- ✓ Menopausal symptoms
- ✓ Motor neuron disease
- ✓ Multiple chemical sensitivities
- ✓ Muscle pain
- ✓ Parkinson's disease
- ✓ Premenstrual syndrome
- ✓ Rheumatoid arthritis

Recent data also suggests that close to 100% of autistic children have irregularities of liver detoxification. One of the pathways that is highly affected is phase II **sulfation**; a process which helps process phenolic foods and many other chemicals.

**The Functional Liver Detoxification Profile (FLDP)** challenges the liver's Phase I and Phase II detoxification capacity with low doses of caffeine, aspirin and paracetamol.

URINE, SPOT	Result	Range	Units	
<b>DETOXIFICATION CAPACITY PROFILE</b>				
<b>PHASE I (OXIDATION)</b>				
Caffeine Clearance	1.8 *H	0.5 - 1.6	ml/min/Kg	
<b>PHASE II (CONJUGATION)</b>				
Glutathionation	8.0	5.6 - 11.4	% Recover	
Glycination	35.5	30.0 - 53.0	% Recover	
Sulphation	24.9	16.0 - 36.0	% Recover	
Glucuronidation	40.6	27.0 - 56.0	% Recover	
<b>RATIOS</b>				
PHASE I / PHASE II - Sulphation	7.2	3.5 - 13.0	RATIO	
PHASE I / PHASE II - Glycination	5.1 *H	1.3 - 3.5	RATIO	
PHASE I / PHASE II - Glucuronide	4.4 *H	1.9 - 4.2	RATIO	
Liver Detox. Profile Comments				

**Phase I Detoxification:** caffeine clearance.

**Phase 2 Detoxification:** measures the detoxification pathways of **glucuronidation**, **glycination**, **glutathionation**, and **sulfation**.

Specific measurements of the different phases of liver detoxification including phase I and phase II (glycination, glucuronidation, sulfation and glutathionation) are obtained, guiding the design of effective and specific therapeutic strategies which can optimize liver function to improve your health.



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Taking the  
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 of diagnosis