

THE BIOVIS HEALTH INDEX Plus

We can now
determine the
BHI
more precisely.

Dear colleagues,

After more than 10.000 BHI measurements and observations, noting that in some cases, despite significant clinical improvement, the BHI sometimes changes minimally, we have re-evaluated all laboratory analyses. Simultaneously, we conducted a study and adjusted additional factors to enhance our test:



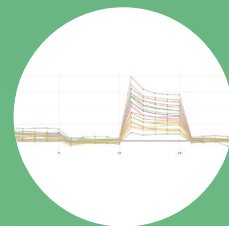
PRECISION IN THE LABORATORY PROCESS

- Latest Generation Equipment
- Increased Measurement Repetitions
- Additional Inhibitors Implemented



DATA-BASED FORMULA OPTIMIZATION

- Data-based adjustment of BHI components
- Based on In-House Study with oxidative stress
- Enables enhanced clinical differentiation



AUTOMATED EVALUATION ALGORITHM

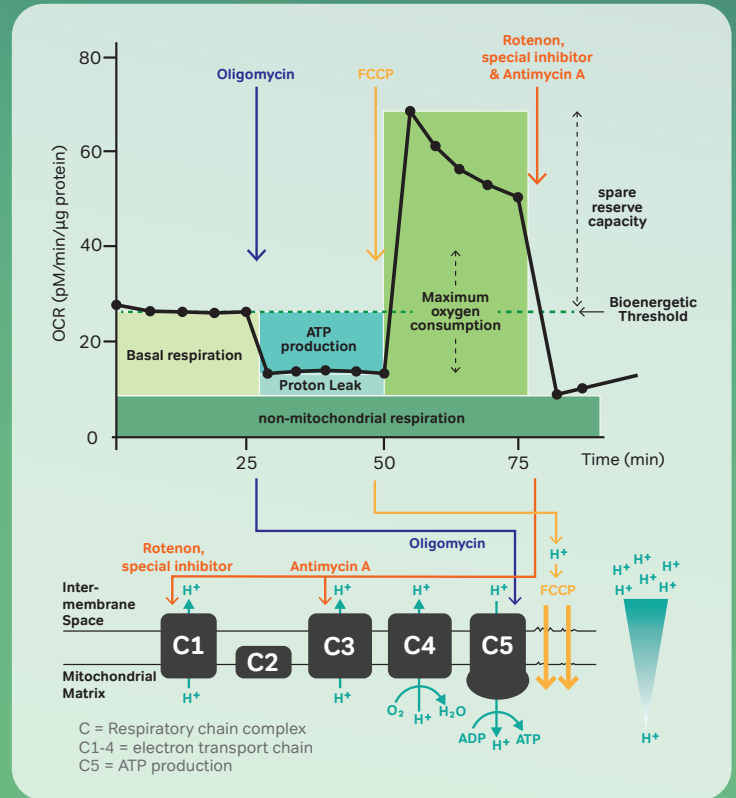
- Objective AI Analysis
- Facilitates human review
- Automatic detection of measurement errors

In our study involving 183 samples and over 1500 data points, we validated this optimized procedure. We examined mitochondria under oxidative and nitrosative stress conditions, enabling us to train an algorithm capable of accurately representing mitochondrial damage. While the majority of BHI values previously ranged between 1.5 and 2.0, we now attribute damages with significantly more detailed values between 0.3 and 3.2, providing a more precise reflection of clinical symptoms. Moreover, the test not only serves to detect mitochondrial dysfunctions but also supports the decision of appropriate therapies such as IHT, IHHT, HOT (hyperbaric ozone therapie), or oxyvenation, based on a new graphical presentation. For instance, in cases of severely damaged mitochondria, IHT or IHHT may pose too much strain, offering no benefit and potentially exacerbating the condition. In such instances, HOT or oxyvenation are preferable. The BHI serves as the foundation for an efficient personalized therapy approach.

Best regards from Limburg
Burkhard Schütz

WHAT IS THE BHI?

The BHI measures the mitochondria function, the energy powerhouses in our cells. When the mitochondria work well, our body is adequately supplied with energy. However, factors such as oxidative stress, a deficiency in specific nutrients or vitamins, as well as a metabolic imbalance, can disrupt these powerhouses. The BHI can identify and provide initial clues about the nature and cause of the disturbance. To calculate the BHI, white blood cells are isolated from the patient's blood in the laboratory and their mitochondrial oxygen consumption is then observed under defined experimental conditions. The complexes of the mitochondrial respiratory chain are disrupted with various biochemical substances (Oligomycin, FCCP, Antimycin A, and Rotenone) to observe how the cells react to these influences. Using this information, various parameters are determined, ultimately leading to a formula and a single number (the BHI), indicating the health of the mitochondria in the cells.



You can find the BHI on the following request form. The required sample material must be sent to us by express.

The screenshot shows a 'REQUEST FORM' for 'AT3'. Under the 'Mitochondria' section, the 'BHI' test is selected with a checkmark. The test description reads: 'Multiparameter analysis for the assessment of mitochondrial performance, e.g. in patients with mitochondrial dysfunction or as monitoring during therapy'. Other tests listed include 'Complementary Biomarkers to clarify causative factors' (PGC-1α, Nrf2, rhodanese) and 'mt/n DNA' (Determines the number of mitochondria per cell). A magnifying glass icon highlights the BHI test option.

For the test, a CPDA tube is required.

