

DEPARTMENT OF YOGA THERAPY

Yoga Therapy Department is one of the key departments in Morarji Desai National Institute of Yoga. The department runs NABH accredited Out Patient Department (OPD) where daily Yoga Therapy consultation, group yoga therapy and individual Yoga therapy classes are being conducted. The department also conducts research specifically therapeutic in nature with the intervention of Yoga. Case reports, therapy projects also being prepared with objective and non-invasive assessments tools used in modern era in University System and Rehabilitation centres as per need.



To carry out multidimensional and multidisciplinary research, case study and research projects, the following equipment are being used in Yoga Therapy Department of MDNIY.

1.0 BIO-WELL GDV CAMERA INFORMATION

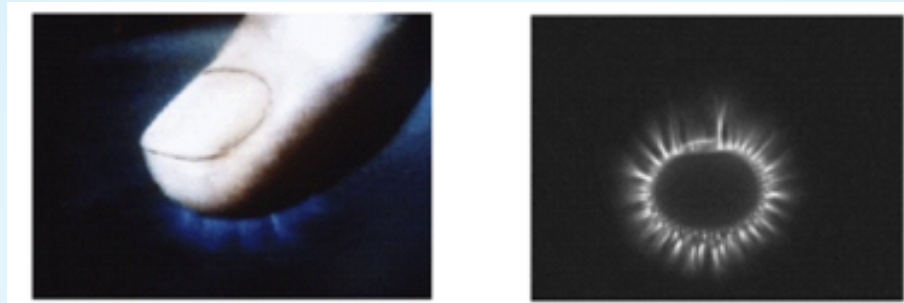
Bio-Well GVD Camera makes an express photo of the gas (air) discharge stimulated by electronic avalanche from the conductive object, human fingertips in particular, placed on the glass electrode under the influence of high intensity high frequency electromagnetic ultrashort impulses. Bio-Well Software processes the obtained images and provides lots of data for parametric and visual analysis of the energetic state of person's whole organism, systems and organs, from the perspective of energy and stress.



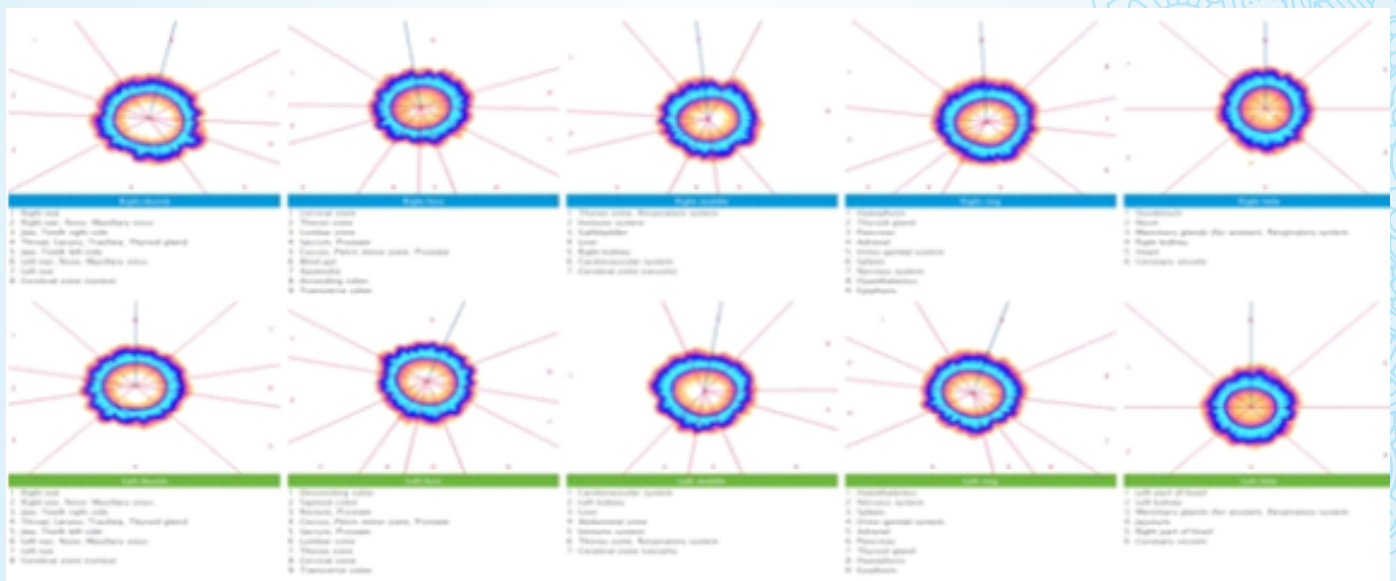
Bio-Well GDV Camera device is based on Gas Discharge Visualization (GDV) or Electro Photonic Imaging (EPI) technology — new era of Kirlian Photography developed in 1995 by a group of Russian scientists led by Dr. Korotkov.



Bio-Well GDV Camera is able to extract free electrons from the tissue of the human fingertip by applying very short electromagnetic impulses to the glass electrode of the device. These electrons create the gas discharge in the air around the finger, which is being photographed by the Bio-Well device with the use of the in-built video-camera.



According to the acupuncture points concept: different zones of the fingertips are connected with the energetic state of various organs and systems in the body. Therefore, uniformity, amount and energy of electrons emitted by each zone is directly connected with the energetic and stress states of an organ or system associated with it.



Bio-Well Software is based on acupuncture point concept and more than 20 years of clinical researches. It provides a user with lots of parameters and visual content about energy and stress level for the whole organism, energy centers, organs and systems.

1.1 USAGE OF BIO-WELL GDV CAMERA

Bio-Well GDV Camera is used: -

- by therapists to analyze the energy and stress state of a patient to detect most problematic zones, and to visualize the effect of therapies.
- by psychologists to analyze the psycho-emotional issues.
- by coaches and athletes to monitor the energetic state during the trainings and competitions; - by general managers to analyze the energy and stress level of their staff.

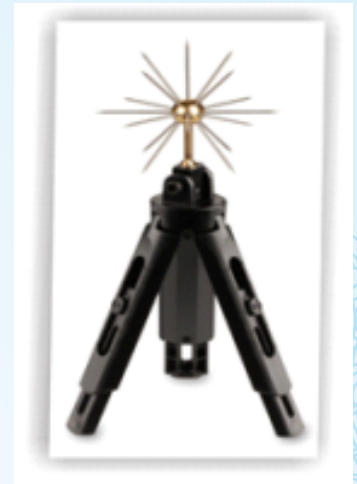
- by organizations to minimize the errors of workers and operators on their workplaces.
- in different research areas to see the effect of different drugless therapies.
- by families to track the energy and stress state of family members.
- By Astrologers can analyze pre and post effects on health by prescribing precious stones.
- Holistic healers to get pre and post reports after treatments.

2.0 SPUTNIK SENSOR (Biowell Accessory)

Sputnik is a sensor and attachment system that affixes to the Bio-Well device, allowing for the energy of an environment to be read. For example, test the energy of a room before, during and after you meditate to see how energy levels change.

Features:

- The primary outputs of the Bio-Well device connected to the Sputnik Sensor are the energy parameters of the space, which allows to evaluate geo-active zones, both positive and negative.
- Measurements have no time limitations.
- Results are presented in the form of time dynamics graphs.
- Powerful embedded mathematics allows statistical processing of data with flexible processing parameters.
- All data may be saved for the further processing and interpretation



3.0 WATER SENSOR (Biowell Accessory)

The Bio-Well Water Sensor connects to the Calibration Unit similarly to the Sputnik and allows for the testing of water's response to environmental stimuli. It is not designed for evaluation of water quality or comparing different types of water from a quality standpoint.



4.0 BIO-COR (Biowell Accessory)

- Bio-Cor is an energy and information device for relaxation and balancing + for energizing/informing various liquids like water.
- It utilizes finger scan data from Bio-Well to create a customized audio experience designed to reduce stress.
- These results can help in developing a better lifestyle. Bio-Cor is using Extremely High Frequency (EHF) in the gigahertz range (40-43 GHz) of extremely low intensity (less than 10 micro W/cm²).

5.0 BIO-WELL GLOVE (Biowell Accessory)

The Bio-Well Glove is designed for realtime measurements of a person's stress level. Bio-Well Glove has two options: a conductive glove for one hand, or a sticky electrode which may be placed on any part of the body. Measurements are conducted in "Environment" or "Meditation" modes. Bio-Well Glove

should be connected to the Calibration Unit supplied with the Bio-Well device.

5.1 Bio-Well Glove is a set of tools: conductive glove and sticky electrodes, for long term measurements of persons stress state. Conductive glove is knitted with the use of silver threads and is connecting to the whole surface of the human hand. Sticky electrodes can be applied to any non-hairy part of the human body (or even animal), in example – to acupuncture points. Depending on the stress level of a person the values of parameters will alter and allow one to study influence of various phenomena on person's state.

REFERENCES

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2. Barsotti, T. J., Jain, S., Guarneri, M., King, R. P., Vicario, D., & Mills, P. J. (2023). An exploratory investigation of human biofield responses to encountering a sacred object. *EXPLORE*.
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DIGITAL INCLINOMETER:

This device can be used for measurement of all joints range of motion.

Features:

- Measurement can be quickly done with one hand, making it possible to support the patient with the other hand.
- Can be used for measurement of all joints range of motion.
- Device High precision sensor and many studies show high reliability and validity.
- Measurement is done with three quick clicks and only one alignment needs to be done at a time
- Ergonomic design and a clear display where the last five measurements are saved.



Clinical Evidence:

- Reliability for Knee ROM: Svensson M, Lind V, Löfgren Harringe M., Karolinska Institutet (2018)
- Validity and Reliability for Hip ROM: Karin Fröjd, University of Uppsala (2016)
- Usability and Reliability for Cervical Rotation: Sebastian Köcker, Universitätsklinikum Freiburg (2017)
- Reliability for Straight Leg Lift Test: Emilie Brinkeback & Emma Lundqvist, Karolinska Institute (2015)
- Reliability for Measuring Scapular Mobility: Silverson OA, Cascia NG, Hettrich CM, Heebner NR, Uhl TL University of Kentucky, Lexington, KY (2019)

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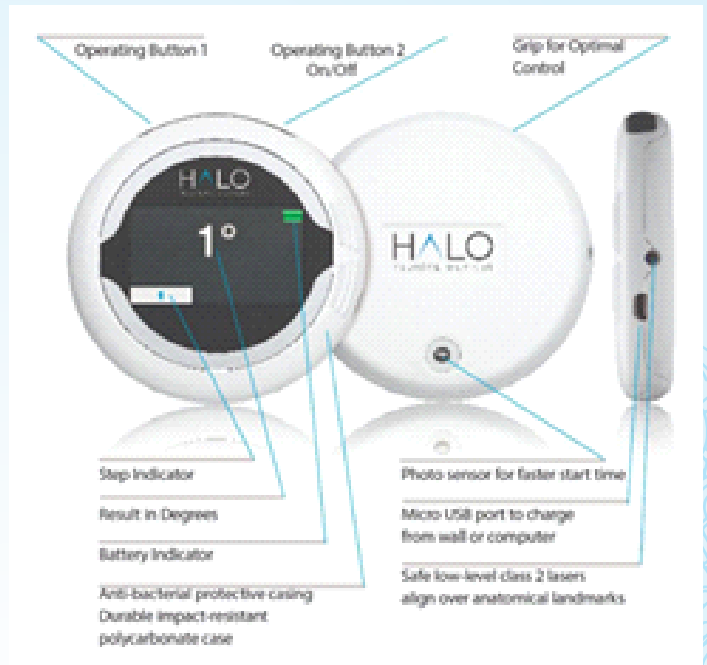
1. Kolber, M. J., Vega Jr, F., Widmayer, K., & Cheng, M. S. S. (2011). The reliability and minimal detectable change of shoulder mobility measurements using a digital inclinometer. *Physiotherapy theory and practice*, 27(2), 176-184.
2. Romero-Franco, N., Montaña-Munuera, J. A., & Jiménez-Reyes, P. (2017). Validity and reliability of a digital inclinometer to assess knee joint-position sense in a closed kinetic chain. *Journal of sport rehabilitation*, 26(1).

DIGITAL GONIOMETER

This digital Goniometer helps to measuring joint range of motion. Practitioners can now use advanced digital and laser technology to deliver and document precision therapy to patients.

Some key advantages and specifications include:

- Higher accuracy ± 1 degree—precision assessment for patient confidence.
- One handed use—you can now support your patient's limb with your free hand.
- Faster measurements, clear, large LCD display—delivers reading for you, with no guesswork.
- Measures in 3 planes. You can take any range, in 5 seconds
- Durable Casing. To survive that accidental drop from your desk
- Collimated laser beams—project the full length of any limb to intersect with anatomical landmarks for repeatable measurements.
- Dimensions (h x w x d): 87mm x 87mm x 19mm
- Weight: 85g
- LCD: 2.4 inch (diagonal) backlit display with 1.7-inch x 1.3 inch viewing area, providing 240 x 302 pixels in full colour. LCD is TFT type
- Battery: Lithium Ion Polymer rechargeable battery
- Laser: Low-level, Class 2, safe beam laser
- Casing: Polycarbonate integrated with antibacterial protection
- Charging: Via Micro USB port or standard wall plug
- Operating temperature range: -40°C to 80°C
- Compliance: Designed to comply with IEC 60601-1 and CE mark of European Conformity



Clinical Evidence:

1. University of Western Australia

- The University of Western Australia, Faculty of Medicine, Dentistry and Health Science, School of Podiatric Medicine. Study Title: Intra and inter-rater reliability of the HALO digital goniometer and the tractograph in a podiatric setting: a comparative study
- Authors: Claire Forde, Lucy Johnston, Emily Longo and Fiona Sherriff, A/Prof Jennifer Bryant
- Abstract: Joint angles are commonly measured in the podiatric setting to determine the range of motion and position of a joint in order to make assumptions regarding foot function.



2. Bond University

- Assessment of shoulder active range of motion in prone versus supine: a reliability and concurrent validity study James Furness BPhy, Scott Johnstone PT, DPT, Wayne Hing PT, PhD, Allan Abbott PT, PhD & Mike Climstein PhD
- Hand Clinic Australian Physiotherapy Association
- Measurement of wrist joint range of motion using the HALO digital goniometer versus the universal goniometer. A Pilot study. Hand Therpay the Clinical Research Institute
- UNSW Medicine Prince of Wales Clinical Schools
- Professor W.Walsh with Research Associate T.Wang. UNSW Surgical and Orthopaedic Research Laboratory. Sydney, AUSTRALIA HALO the Digital Goniometer and Inclinator attached to the Laboratory Robot for direct comparison of Robot Versus HALO angles.
- Wilson-Smith, A. R., Muralidaran, S., Maharaj, M., Pelletier, M. H., Beshara, P., Rao, P., ... & Walsh, W. R. (2022). Validation of a novel range of motion assessment tool for the cervical spine: the HALO© digital goniometer. *Journal of Spine Surgery*, 8(1), 93.

