Body Composition Assessment

The world’s gold standard for fast, accurate and safe body composition assessment

“Numbers you can trust”

COSMED
The Metabolic Company
Since its introduction in 1994, the BOD POD has been used extensively worldwide for a variety of applications within the Healthcare, Academic/Research, Performance, and Wellness sectors. Because the BOD POD’s highly accurate ADP technology does not involve radiation, underwater submersion, or difficult testing maneuvers, assessments are quick and simple for both the subject and the operator. This unbeatable combination of accuracy, safety and speed has resulted in the BOD POD now being recognized as the practical gold standard for body composition assessment. The BOD POD’s ability to test virtually all populations makes it the best and most flexible option for frequent testing and longitudinal tracking of body composition changes over time.

Only the BOD POD offers the unique combination of:

**ACCURACY:** Scientifically based technology validated in over 2,000 published research articles since 1995

**SAFETY:** Non-invasive (no radiation) Air Displacement Plethysmography (ADP) technology

**SPEED:** Quick and easy assessments in less than 5 minutes

**CONNECTIVITY:** OMNIA™ software for database management, networking, and HL7 integration

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**Proven Accuracy**

Since the publication of the first BOD POD research in 1995, hundreds of additional published research studies have validated the accuracy and reliability of the BOD POD within a diverse range of subjects, including athletes, the elderly, obese, disabled and young children.

Each BOD POD is a complete turnkey system based on the same operating principles as hydrostatic (underwater) weighing, using the principles of whole-body densitometry to determine body composition. This technique relies on a mass measurement from the BOD POD’s precise electronic scale and a volume measurement from the BOD POD test chamber.

Once body density (Density = Mass/Volume) is determined, the BOD POD measures or predicts Thoracic Gas Volume (TGV) and uses densitometric equations to calculate percent Fat and Fat-Free mass.
The BOD POD is ideal for testing a wide range of subjects, including children (as young as 2-years of age with the Pediatric Option™ accessory), the elderly, obese, and disabled. It is also the best choice for frequent, repeat testing, and is used in a variety of university research and teaching departments. There is no need for cross-calibration in multi-center studies due to the BOD POD's proven intra-device reliability. The BOD POD is used throughout academic departments, including:

- Exercise Science
- Kinesiology
- Nutrition

A BOD POD assessment contains the key data necessary for developing personalized health plans to lower disease risk and provides essential feedback regarding nutritional intervention. The BOD POD is widely used in:

- Clinical Nutrition
- Obesity Medicine
- Medical Research, including diabetes, cardiovascular, and cancer

The BOD POD is a powerful tool for monitoring and tracking the effectiveness of training and nutrition programs, making it a critical component for optimizing physical performance. The large BOD POD test chamber allows for the testing of subjects over 7 ft tall and is used extensively in:

- Professional Sports, including top NFL teams and the NFL Combine since 2006
- College & University Athletics
- Military, including Special Forces, Army Wellness Centers (AWC), and Air Force Health & Wellness Centers (HAWC) worldwide
- Public Safety

The insight offered from a BOD POD assessment provides valuable input for implementing lifestyle changes to improve fitness and well-being. The BOD POD is routinely used for promoting a healthy balance of fat and muscle in:

- Weight Loss Clinics
- Health Clubs
- Resorts & Spas

Key Features
- Body Volume, Weight, Fat, and Fat-Free measurements using whole-body densitometry
- Non-invasive and safe for frequent testing
- Excellent test-to-test reliability
- For subjects up to 550 lb and over 7 ft tall
- Flexibility in testing special populations, including young children (with the Pediatric Option™)
- Faster test time using the internal electronic volume calibration
- Direct measurement of Thoracic Gas Volume (TGV)
System Components

Each BOD POD system comes complete with all necessary components, including:

- BOD POD Chamber (>500 liters)
- Electronic Scale and Calibration Weights
- Integrated 24-inch Touch-Screen Workstation with operational capability and option to add COSMED cardiopulmonary equipment with gas tanks*
- OMNIA Data Management Software

*In North American markets only

Test Process

Testing with the BOD POD is extremely fast and easy. There are no operator licenses necessary or complex subject maneuvers required. The BOD POD’s efficient electronic internal volume calibration and user-friendly TGV routine/system allow for a complete test to be accomplished in less than 5 minutes using the following steps:

1. Basic subject information is entered into the BOD POD software program
2. The subject’s mass is measured using the electronic scale (accuracy is verified by regular calibrations using the provided calibration weights)
3. The subject’s body volume is measured while sitting inside the BOD POD for 2 minutes
4. Thoracic Gas Volume (TGV) is measured or a predicted equation is used
5. Test results are displayed and printed

Software

- Population density models included for Children, Adults, Pregnant Women, and Ethnic Groups
- Ability to enter data (Total Body Water, Mineral, Protein) for other compartments in 3 and 4-Compartment Models
- Data export capability

Improved subject compliance with new TGV measurement procedure, including the ability to perform and average multiple trials.

Intuitive and user-friendly software interface
Test Results & Printouts

- Results are presented in software and printouts in graphical and tabular format
- Detailed color printouts are designed for intuitive results interpretation
- Research-based body composition references are provided for adults, elderly (up to 90 years old), and athletes (by sport and position)
- References are provided as Mean +/- 1, 2, 3 SD, providing valuable information on results distribution
- Ability to edit and print software-generated automatic interpretation
- Ability to enter compartmental information (total Body Water, Mineral, Protein), allowing for the calculation of body composition using 3- or 4-compartment models

Highlights:

- Software and printed results are supported by research-based body composition references
- Over 60 sport and position-specific references offered
- Data entry capability for the use of 3- and 4-compartment models
Only the BOD POD® GS-X offers the mobility and flexibility for easily and comfortably testing nearly all populations, ranging from young children to elderly adults...

Data Management
The Body Composition module of COSMED’s OMNIA software (included) provides calibration checks, visual test sequence, and easy reporting with import/export capabilities, PHI and HIPAA compliant.

OMNIA Networking Software (Option)
The OMNIA Networking software (sold separately) allows for the sharing of a single database for integration of BOD POD test data with all COSMED systems and connected devices (ECG, CO, BPM, SmO2, SpO2, etc.) on Standalone, Local, and Wide Area Networks (WANs).

OMNIA HL7 Software (Option)
The OMNIA HL7 software (sold separately) permits secure receipt of data requests from HL7 worklists for sending results to Electronic Medical Records (EMR) and Hospital Information Systems (HIS).
Pediatric Option™ Accessory

The BOD POD with the Pediatric Option accessory (sold separately) allows for the body composition assessment of children between 2 and 6 years old, and as small as 12kg. It includes a customized seat insert to create a safe and comfortable testing environment, calibration standard, and modified software for testing young children.


Maintenance

The BOD POD is designed for durability over time. Should the need arise, each BOD POD has an internal diagnostic function for analyzing system performance and providing feedback to service personnel. Extended service agreements are also available to insure optimal performance for long term use.

About COSMED

COSMED is the manufacturer of premier Cardio Pulmonary, Metabolic and Body Composition diagnostic equipment. The Company was founded in 1980, with global headquarters in Rome, Italy, and US headquarters in Concord, California. Since its inception, COSMED’s primary goal has been to continually improve the quality of its technologies and products through innovation and superior customer service.
**Research Articles (Partial Listing)**

**Review & Validation**

**Obesity**

**Pregnancy**

**Children**

**Elderly**

**Athletics**

**Military**