



**Assessing infant body composition accurately and safely.**



Many researchers and clinicians acknowledge that body composition assessment provides a much better gauge of infant growth and nutritional status than length and weight measurements. A reliable body composition analysis helps provide the vital information necessary to assess the efficacy of diet and medical interventions, especially in low birth weight infants.



***“ADP [PEA POD] is a reliable and accurate instrument for determining %BF in infants, and it has the potential for use in both research and clinical settings.”***

*G. Ma, et al.*

*The American Journal of Clinical Nutrition*

Use the PEA POD® in research and clinical settings to help:

- Assess infant growth
- Optimize nutritional and pharmacological interventions
- Investigate and optimize release criteria in NICU settings
- Establish normative body composition data



## About Infant Body Composition

Numerous researchers recognize that the accurate assessment and tracking of body composition in the critical period immediately following birth can provide key information in both clinical and research settings. Body composition results can be used to help monitor and evaluate infant growth patterns, optimize nutritional interventions, obtain important feedback during drug treatments, and optimize release criteria. The collection of infant body composition data can also be used to establish normative databases. Best of all, the PEA POD can help achieve these goals.

Previously, obtaining reliable infant body composition data has been difficult, with available methods limited by issues relating to measurement accuracy, practicality, invasiveness, and safety. With the PEA POD, highly precise measurements of infant body fat and fat-free mass can be obtained quickly, safely, and comfortably using the proven accuracy of air displacement plethysmography (ADP).

### PEA POD Highlights

- Uses patented air displacement technology to assess percent body fat and fat-free mass
- Accurate and precise based on research findings
- Safe and noninvasive
- Short test time (approximately 7 minutes)
- For infants weighing between 1 kg (2.2 lbs) and 8 kg (17.6 lbs)
- Accommodates most infant behaviors
- Comfortable testing environment
- Mobile
- Minimal operator training required
- Menu-driven software with data management capability



## How the PEA POD Works

The PEA POD is based on the same operating principles as the BOD POD® Body Composition Tracking System, used for assessing the body composition of adults and children for over 10 years. The PEA POD uses the same advanced air displacement technology and the theory of whole body densitometry to determine percent fat and fat-free mass in infants. Infant body volume is determined using gas laws along with body mass (weight) to calculate body density. Body density is then used in a 2-compartment model to compute the infant's percentage of fat and fat-free mass.

## Test Sequence

- 1) Basic information is input into software program, while the first automatic volume calibration takes place.
- 2) The infant's mass is measured.
- 3) The infant's body volume is measured.
- 4) A second automatic volume calibration occurs.
- 5) Test results are computed, displayed, and printed.



**PEA POD Infant Body Composition System**

Test Results:

Parameter	Value	Units
% Fat	24.0	%
% Fat Free Mass	75.2	%
Fat Mass	0.4995	kg
Fat Free Mass	1.5149	kg
Body Mass	2.0144	kg
Body Volume	1.9679	L
Body Density	1.0236	kg/L
Fat Mass Density	0.9007	kg/L
Fat Free Mass Density	1.0527	kg/L
Body Surface Area	186.3	cm <sup>2</sup>
Thoracic Gas Volume	0.0922	L
First Volume	1.8790	L
Second Volume	1.9300	L
Third Volume	1.8970	L
Average Volume	1.9007	L

Subject Information:

Field	Value
First Name	JJPrn
Male Name	JJPr
Last Name	One
DOB	3/22/2004
Seasonal Age	39
Gender	Male
Length	58.00
Length	cm
ID_1	555-12-1234
ID_2	
Group	Name
Operator	Admin
Test Date	3/22/2004 4:10:49 PM
Test No.	

***“Body composition assessment is recognized as the most accurate method of measuring infant growth and nutritional status.”***

*R.D. Sainz, et al.*

*American Journal of Clinical Nutrition*

## Research Findings

Numerous research publications have established the scientific validity of Life Measurement's air displacement technology in adults and children. In fact, ADP is now considered by many researchers to be the "gold standard" for body composition assessment.

As with the adult version, the performance of the PEA POD has been evaluated against recognized reference methods in studies conducted by leading researchers in the fields of body composition, nutrition research, and pediatric research. Results from these studies have been published in peer-reviewed, top-ranked, scientific journals.

In addition to positive findings obtained in studies conducted in inanimate and animal models, multiple studies were conducted in the infant population, all showing the PEA POD's ability to precisely and accurately assess body composition in neonatal and pediatric populations.

*"[ADP] is a reliable and valid technique that can quickly and safely evaluate body composition in a wide range of subject types, including those who are often difficult to measure, such as the elderly, children, and obese individuals."*

*D.A. Fields, et al.*

*The American Journal of Clinical Nutrition, 2002*



## We trust the PEA POD for our own babies...

Among the babies around the world tested in the PEA POD were babies of our own employees. We are very proud of the fact that all of the babies pictured in this brochure are the children of Life Measurement, Inc. employees.



Isabella Urlando



Alyssa Wei



Austin Ramos

## Specifications

### Power Requirements:

Line Voltage = 120V to 240V  
Line Frequency = 50Hz to 60Hz  
Maximum Power = 1200W

### Operating Environment:

Temperature Range = 64.4-86°F (18-30°C)  
Relative Humidity = 20-70% (Non-Condensing)  
Floor Slope < 0.5°

### Dimensions:

Height = 61.5 in (156.2 cm)  
Width = 31.4 in (79.8 cm)  
Depth = 48.2 in (122.4 cm)



## The Life Measurement Mission

The mission of Life Measurement, Inc. is to enhance human health and performance by providing the world's best measurement instruments.



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