

LEANGARD®

A close-up photograph of a person's hand holding a golden key. The hand is positioned on the left side of the frame, with the thumb and index finger gripping the key's head. The key is held horizontally, pointing towards the right. The background is a dark blue gradient.

The Key to Natural
Weight Management
Support

Presented by
Sabinsa Corporation



LeanGard®

A bioavailable combination of natural ingredients that addresses multiple targets in weight management:

- ✓ **Supports Lean Body Mass and Healthy Body Composition**
- ✓ **Promotes satiety**
- ✓ **Provides Antioxidant support**





Composition

➤ Composition of LeanGard*:

- ✓ ForsLean*
- ✓ GarCitrin*
- ✓ BioPerine*

➤ Suggested Use level:

- ✓ 500mg taken twice daily.



The beneficial effects of LeanGard are best obtained when the supplement is used in conjunction with a sensible diet and healthy life style measures.





Synergy of Ingredients

ForsLean[®]

(Coleus forskohlii extract, 10% forskolin):

Forskolin helps build lean body mass and maintain healthy body composition through cAMP mediated action

GarCitrin[®]

(Garcinia cambogia Extract):

Hydroxycitric acid in combination with garcinol supports satiety, weight management, and lean body mass ; provides antioxidant support. Effectively intervenes in the conversion of Carbohydrates to fat through ATP citrate lyase inhibition

BioPerine[®] (*Piper nigrum Extract*):

Enhances uptake and utilization of the natural actives.



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ForsLean®

- ForsLean® is a powdered extract from the root of *Coleus forskohlii*.
- Standardized to contain 10% forskolin.
- ForsLean® is well-tolerated and without adverse side effects.
- At 500mg/day for up to 12 weeks, produced no significant detrimental effects on biochemistry, hematological parameters, blood pressure or thyroid functions.

Expert Review Report from Cantox Health Sciences International ON, Canada, August 2004

www.forslean.com



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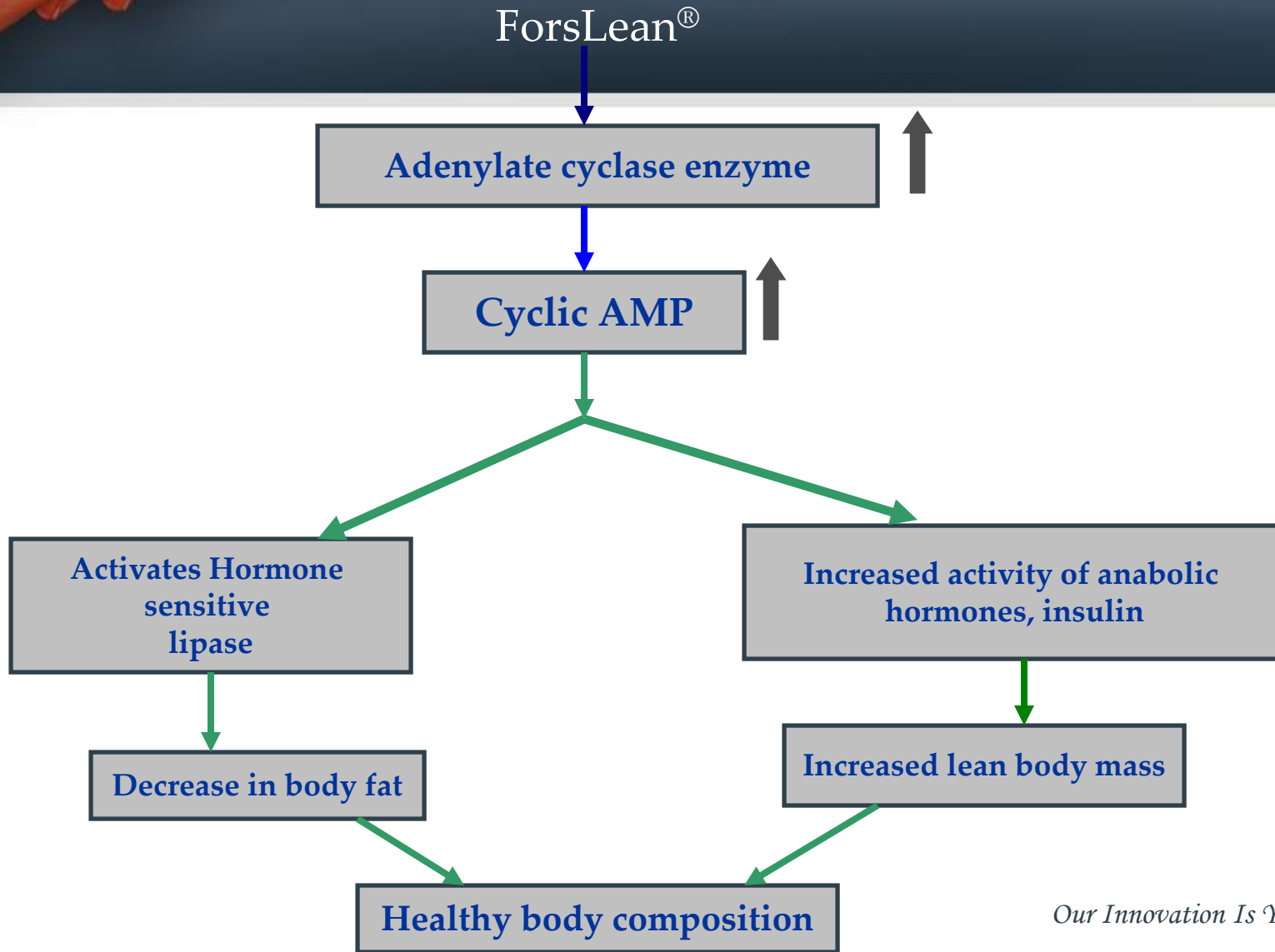
The Coleus Root



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Mechanism of Action





Clinical Studies on ForsLean®

- Open field study (8 weeks) with 6 overweight women subjects – *Dr. A. Conte, USA*
- Open-field study (6 months) with 16 obese subjects – *Dr. Asano, Japan*
- Pilot clinical efficacy and safety study, 19 women subjects, randomized, double blind placebo controlled – *University of Memphis TN, USA*
- Preclinical toxicology evaluation – *CBPRC, Bombay*
- 60 subject clinical efficacy study – *CBPRC, Bombay*
- 24 subject clinical efficacy study – *Northern Michigan University, USA*





Clinical Studies on ForsLean[®]

- Double-blind placebo controlled study, 30 obese/overweight subjects – *Kansas State University, USA*
- 60 subject clinical efficacy study– *Manipal, India*
- 6 month feeding/toxicity study – *India*
- Micronucleus assay and dose effects studies – *India*
- Bone Density and Hormonal Levels Study, *Mumbai, India*
- Hormonal Study (3months) with 30 male subjects, *Manipal, India*





ForsLean[®]

Won the Nutracon Best Product Award, 2001



US Patent # 5,804,596, won the Thomas Alva Edison Patent Award (R & D Council, NJ, USA) in 2004



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ForsLean[®] is:

- ✓ A safe, naturally derived, effective dietary ingredient composition
- ✓ Patented* for use in promoting lean body mass
- ✓ Clinically tested in humans (multiple studies)
- ✓ Kosher & Halal Certified
- ✓ A tried and tested ingredient that manufacturers, retailers and consumers can have confidence in

U.S. Patent # 5,804,596, European Patent # EP0977564, Canadian Patent # CA2281562



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GarCitrin[®]

Source:	<i>Garcinia cambogia</i> (Malabar tamarind, fam. Clusiaceae)
Plant part used:	Fruits
Active constituents :	(-) Hydroxycitric acid (HCA), Garcinol
Nutraceutical benefits:	Weight management support



***U.S. Patent #7,063,861, Australia: AU773081, Europe: EP1254209,
New Zealand: NZ 518116***



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GarCitrin[®]

- Garcinol :
 - ✓ amplifies the biological action of HCA
 - ✓ contributes antioxidant activity to the formulation.
- The combination of calcium salt of HCA and Garcinol reduces fatty acid and lipid synthesis and improves lean body mass much more effectively than HCA alone.





Clinical comparison between HCA and GarCitrin[®]

- **GarCitrin[®]** is statistically more effective than **HCA** in:
 - ✓ reducing total body weight and body mass index
 - ✓ reducing body fat
 - ✓ increasing lean body mass and content of body water
 - ✓ reducing levels of appetite perception
- **GarCitrin[®]** and **HCA** did not produce subjective or objective side effects.





BioPerine®



- **BioPerine® is a patented standardized extract obtained from black pepper, containing not less than 95% piperine.**
- **A clinically proven natural bioavailability enhancer for nutrients.**





Possible mechanisms for increased Nutrient bioavailability

- ✓ Increases blood supply to the GI tract
- ✓ Increases emulsifying content of the gut
- ✓ Increases active nutrient transport





BioPerine[®] is widely Patented

1. **U.S. Patent 5,536,506**
2. **U.S. Patent 5,744,161**
3. **U.S. Patent 5,972,3821**
4. **U.S. Patent 6,054,585**
5. **European Patent # EP0810868**
6. **Japan Patent # 3953513**
7. **Canada Patent # 2247467**

www.bioperine.com



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The
LeanGard[®]
Clinical
Trial



Study Design

Placebo controlled randomized double blind parallel-group study comparing the efficacy and safety.





Study Design

No. of volunteers : **50 over-weight subjects** in each group comprising of 24 Men and 26 Women ranging in age from 25 to 55 years.

Study duration : **12 weeks.**

Schedule of visits :

Baseline	Visit 1	Visit 2	Visit 3	Visit 4
Week 0	Week 3	Week 6	Week 9	Week 12





Dosage

500mg of the LeanGard[®] or Placebo

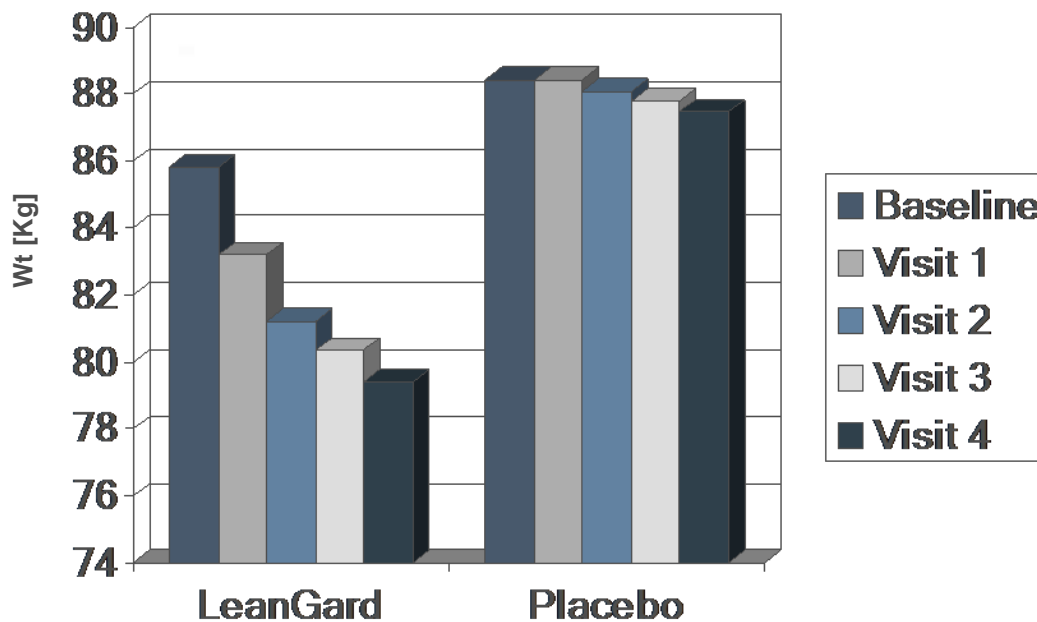
was given twice daily to the participants

of the trial.





Reduction in Body Weight

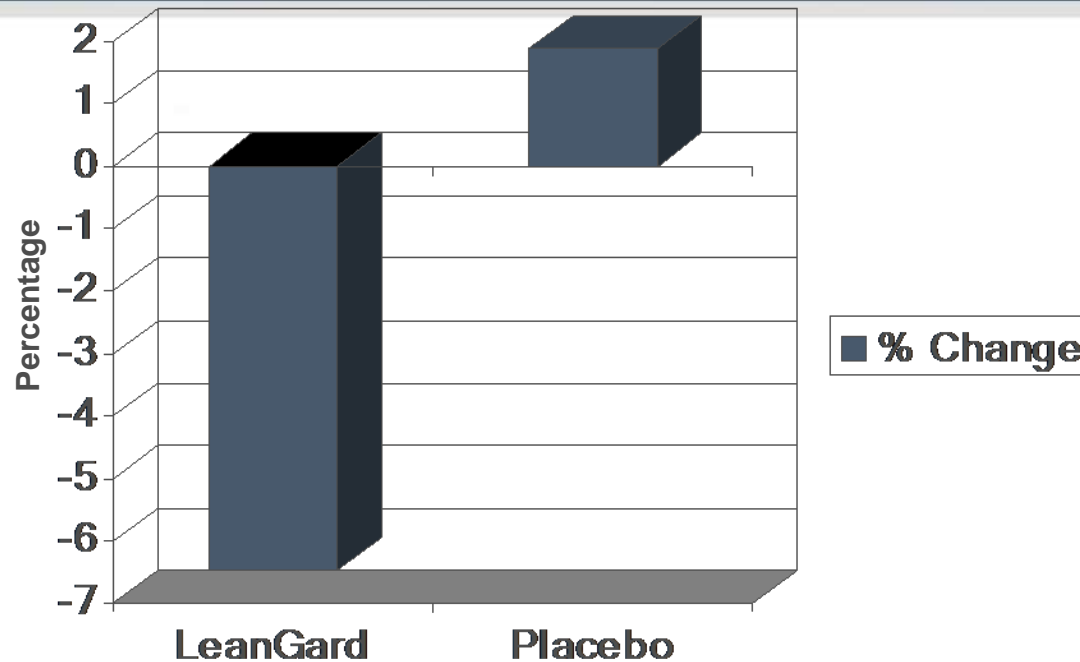


Details	LeanGard [®]	Placebo
Body Weight	7.5% ↓	1.1% ↓





% Change in Waist : Hip Ratio

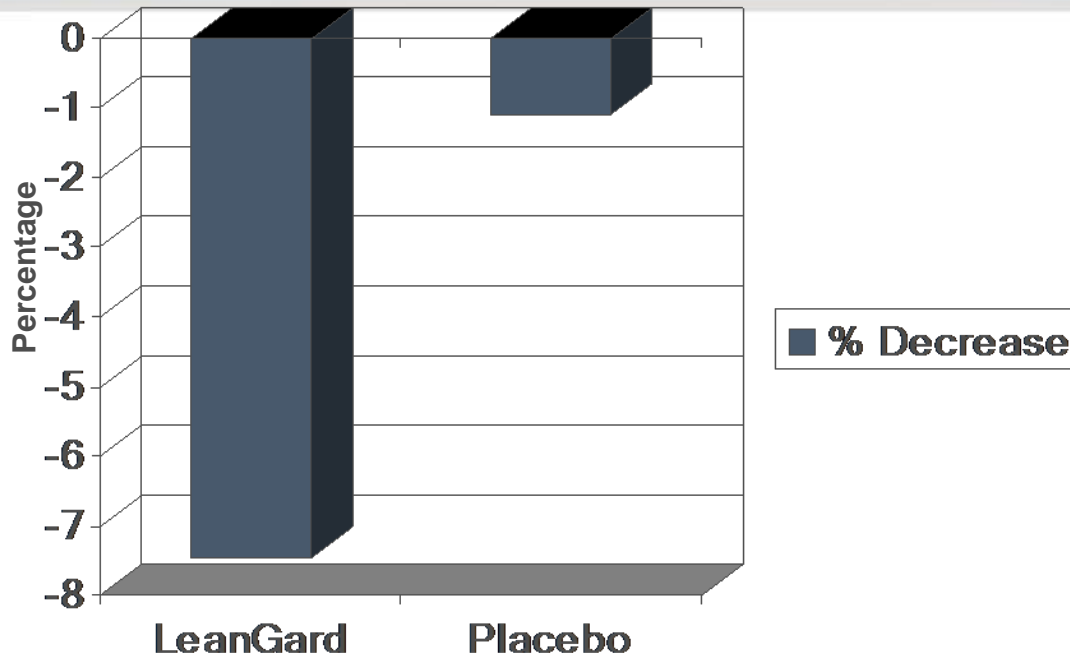


	LeanGard [®]	Placebo
Waist : Hip Ratio	6.47% decrease	1.89% increase





% Decrease in Body Mass Index

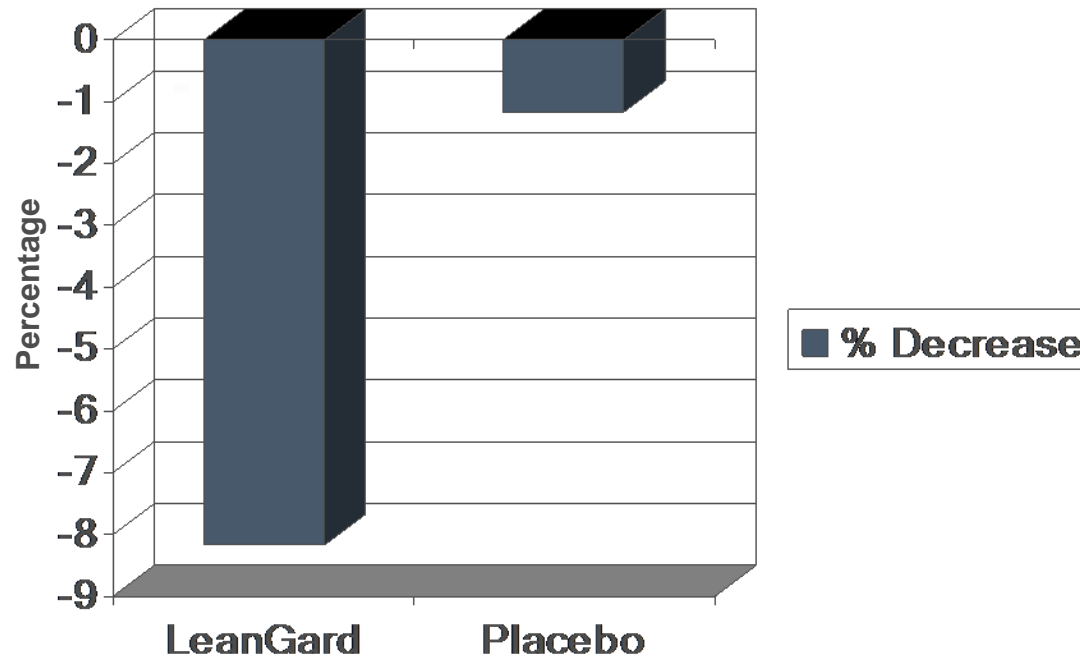


	LeanGard [®]	Placebo
% Decrease in BMI	7.45 % decrease	1.09 % decrease





% Decrease in Body Fat

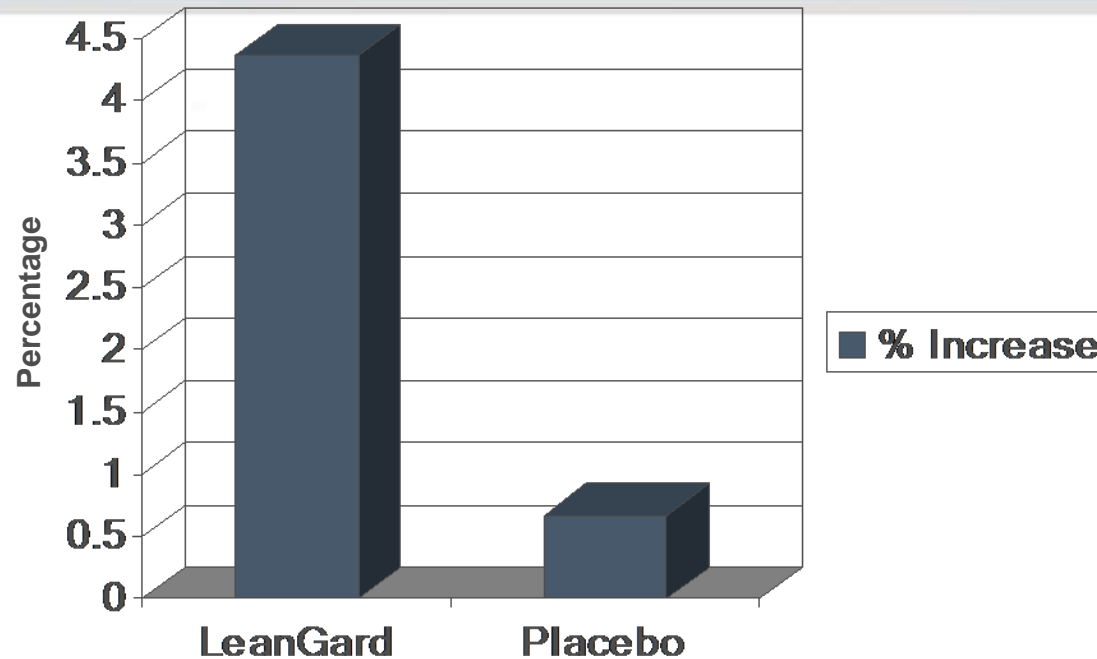


	LeanGard [®]	Placebo
% Decrease in Fat	8.15% decrease	1.18 % decrease





% Increase in Lean Body Mass

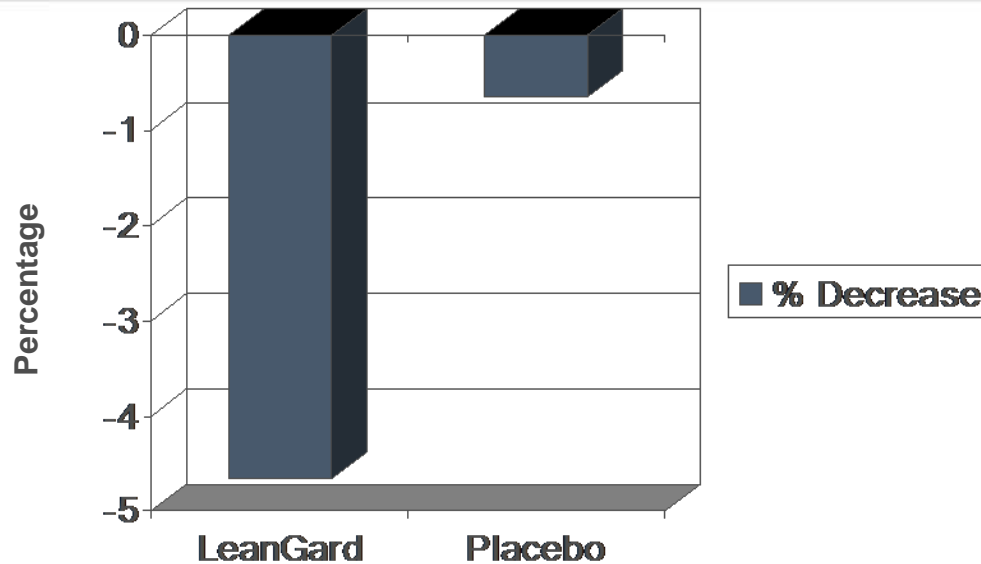


	LeanGard [®]	Placebo
% Increase in LBM	4.36 % Increase	0.67 % Increase





% Decrease in Basal Metabolic Rate



	LeanGard®	Placebo
% Decrease in BMR	4.50 % decrease*	0.64 % decrease

***Please note:**

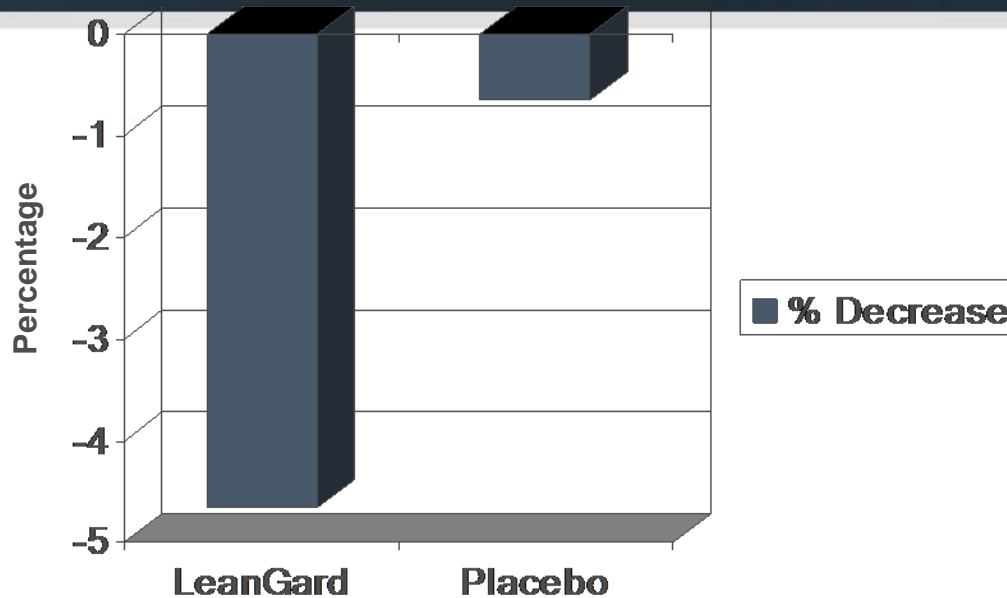
The relationship between BMR and obesity is complex. BMR increases with obesity and overfeeding, a “coping mechanism” by the body. The results here indicate that LeanGard by supporting a healthy body composition, beneficially modulates increased BMR in obese/overweight subjects.



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% Decrease in Total Body Water



	LeanGard®	Placebo
% Decrease in TBW	4.66% decrease*	0.66 % decrease

*** Please Note:**

TBW: 4.66% average loss in Total Body Water from baseline corresponds to about 1.95 kg or about 4.29 lb. The actual average reduction in body fat corresponds to about 8.82 kg, or about 19.4 lb. Water forms roughly about 25% of the fat lost w/w, which corresponds to about 2.03 kg or 4.4 lb by weight. So essentially, the total body water lost can be related to water in the lost fat. Hence the intervention, LeanGard has no detrimental effects on hydration.



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Other Parameters

No significant changes in

- Blood pressure or Heart rate
- Hematological parameters
- Liver function
- Renal function
- Thyroid function
- Plasma lipid levels





Summary of Results

	Group 1 * (LeanGard)	Group 2 (Placebo)
Waist : Hip ratio	6.47% decrease.	1.89% increase.
	Significant from V1	Significant in V2 & V3.
Basal Metabolic Index	7.45% decrease	1.09% decrease.
	Significant from V1	Significant in V3 &V4.
Body Fat %	8.15% decrease.	1.18% decrease.
	Significant from V1	Significant in V3 & V4.
Lean Body Mass %	4.36% Increase.	0.67% Increase.
	Significant from V1	Significant in V3 & V4.
Basal Metabolic Rate	4.50% decrease.	0.64% decrease.
	Significant from V1.	Significant in V3 & V4.
Total Body Water	4.66% decrease.	0.66% decrease.
	Significant from V1.	Significant in V3 & V4.

Significance at $P < 0.05$.

V1-visit 1, V2-visit 2, V3-visit 3, V4-visit 4.



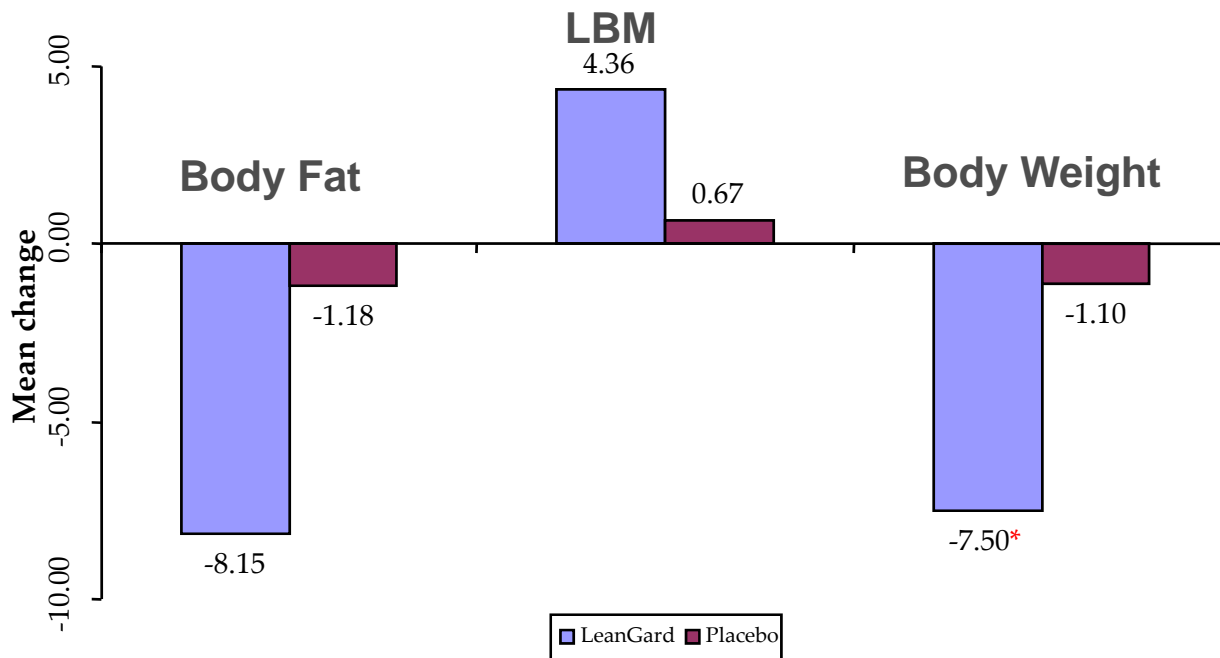
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Graphed Summary

Percentage change in body fat, lean body mass and body weight (n=50)

* Statistical significance of $p < 0.01$ between the groups





Conclusion

LeanGard[®] is an effective and clinically safe dietary intervention for weight management support.





Thank You

LeanGard[®]
For a
Healthy
Body
Composition



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