



# Attitude Drink Company



## PHASE III Research Results



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## Purpose

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Examine the effects of consuming Phase III Recovery after performing an exhaustive bout of exercise compared to

- Isocaloric carbohydrate drink (Gatorade)
- Low sugar isocaloric protein drink (Muscle Milk)
- High sugar isocaloric protein drink (Low fat chocolate milk)

### Population

Nine healthy, endurance trained men.



- Subjects rode to failure on a bike that slowly increased in intensity.
- Rested 10–15 minutes
- Rode 5 minute intervals between 85 and 50 % of max then 75 and 40 % for up to 10 stages (50 minutes)
- Subjects exercised around 60 to 80 minutes and completed the exact same exercise protocol each time they came to the lab
  - No sooner than 6 days between testing days.

# Drink Protocol



**PHASE III**  
RECOVERY

- Given half of a dose immediately after exercise
- Given the other half 1 hour later
- 0.3 CHO g/kg per hour (1.2 g/kg total):  $\approx$  1 drink per subject

Drink	Total oz.	Total Calories	Total CHO	Total PRO	Total FAT	CHO/PRO	CHO, PRO, FAT (%)
Gatorade	54.0	377.7	94.4	0.0	0.0	1:0	100, 0, 0
Choc Milk	17.7	377.0	64.2	17.7	5.5	3.6:1	74, 20, 6
Phase III	16.6	377.7	41.3	40.2	5.7	1:1	47, 46, 7
Muscle Milk	18.0	377.4	18.0	36.0	18.0	0.5:1	25, 50, 25





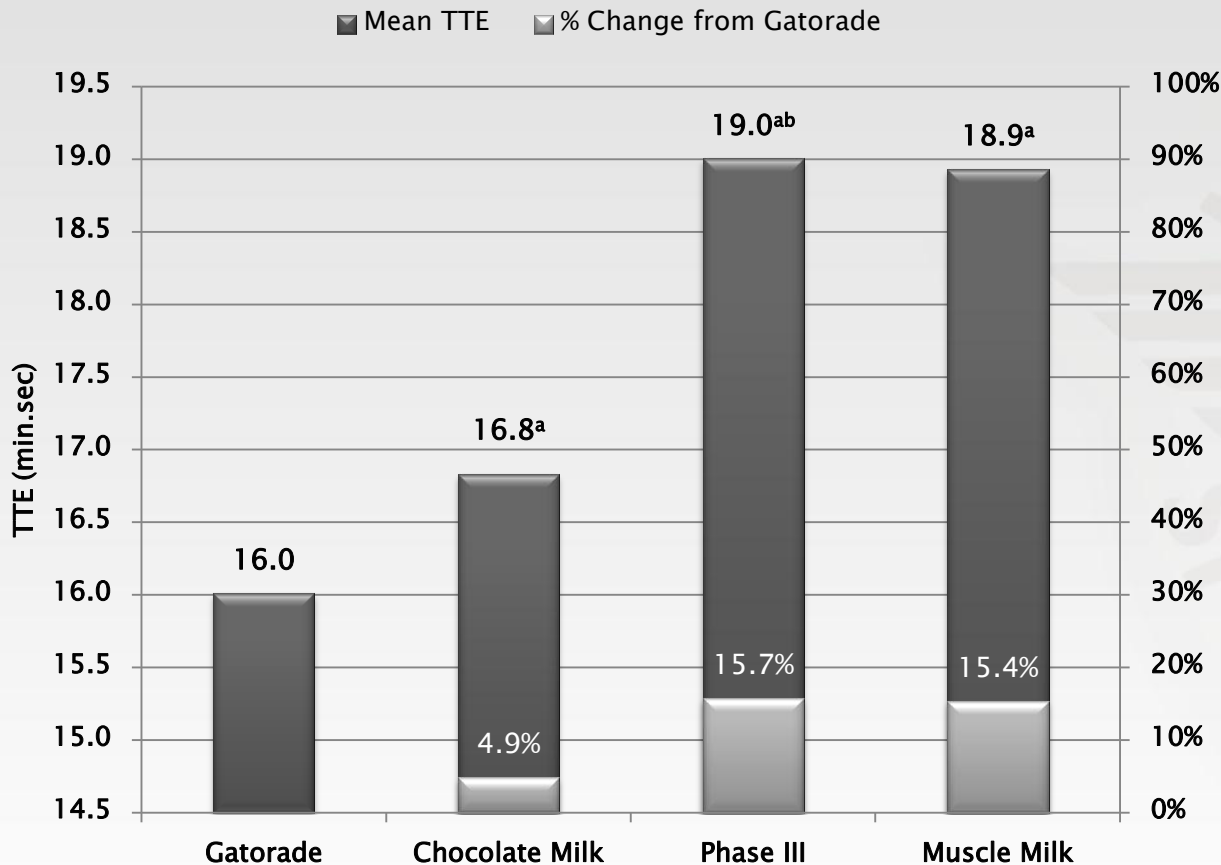
- Phase III Recovery will promote greater recovery from an exhaustive bout of exercise four hours post consumption compared to an isocaloric low sugar protein drink, an isocaloric high sugar protein drink or an isocaloric carbohydrate drink.
- Phase III Recovery increases endurance capacity four hours post consumption more than an isocaloric low sugar protein drink, an isocaloric high sugar protein drink or an isocaloric carbohydrate drink.
- Phase III Recovery promotes greater fat utilization four hours post consumption more than an isocaloric low sugar protein drink or an isocaloric carbohydrate drink.

# Main Findings



**PHASE III**  
RECOVERY

## Time to Exhaustion (TTE) @ 70% VO<sub>2</sub>peak



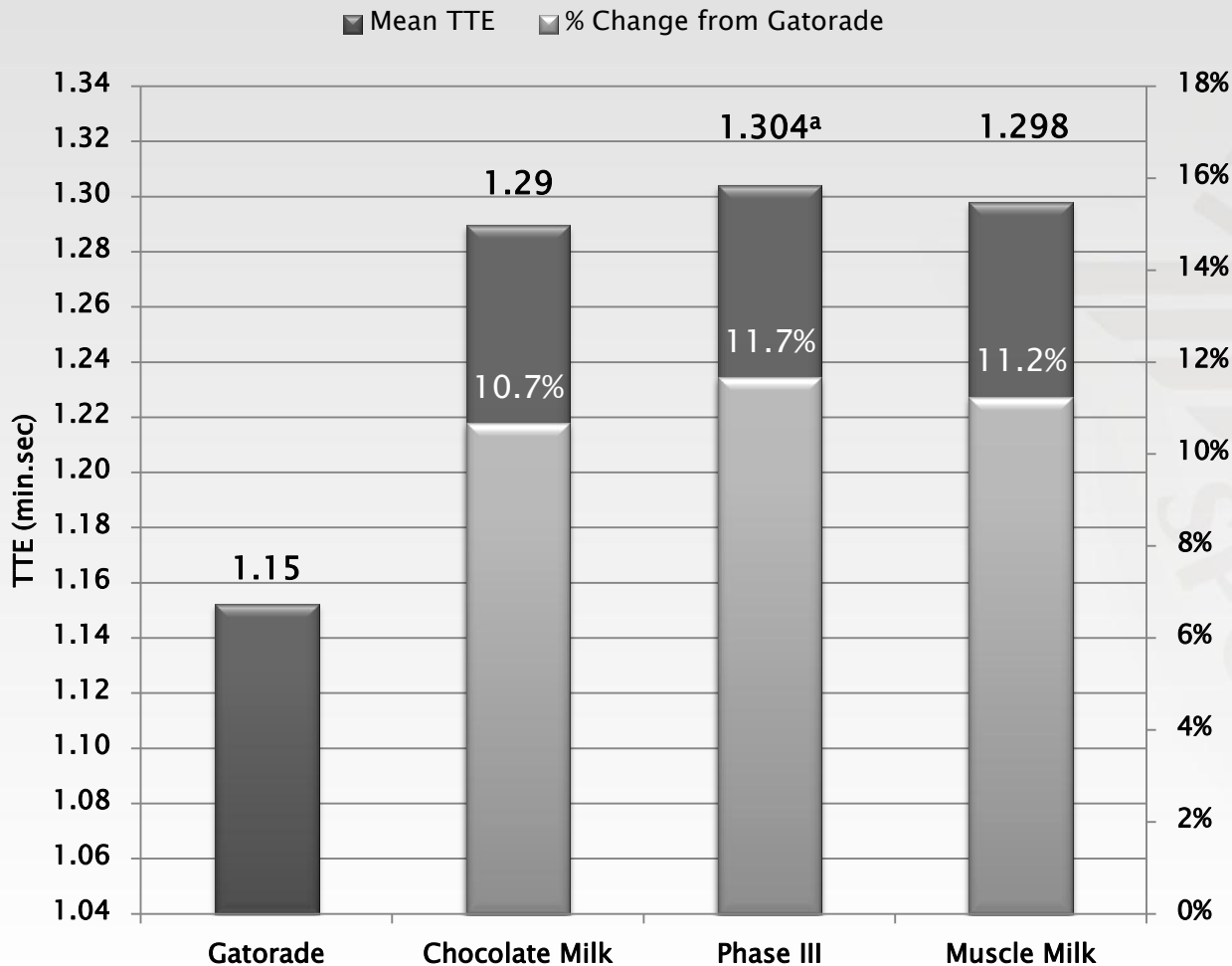
- All 3 drinks significantly increased time to exhaustion (TTE) and aerobic capacity compared to Gatorade.
- Only Phase III significantly outperformed both Gatorade and Chocolate Milk.
- Muscle Milk and Chocolate Milk were not significantly different.

a = Significantly greater than Gatorade

b = Significantly greater than Chocolate Milk



## Time to Exhaustion (TTE) @ 115% VO<sub>2</sub>peak



- Only Phase III significantly increased TTE at 115% of max.
- There was no significant difference between Chocolate Milk, Phase III, and Muscle Milk.

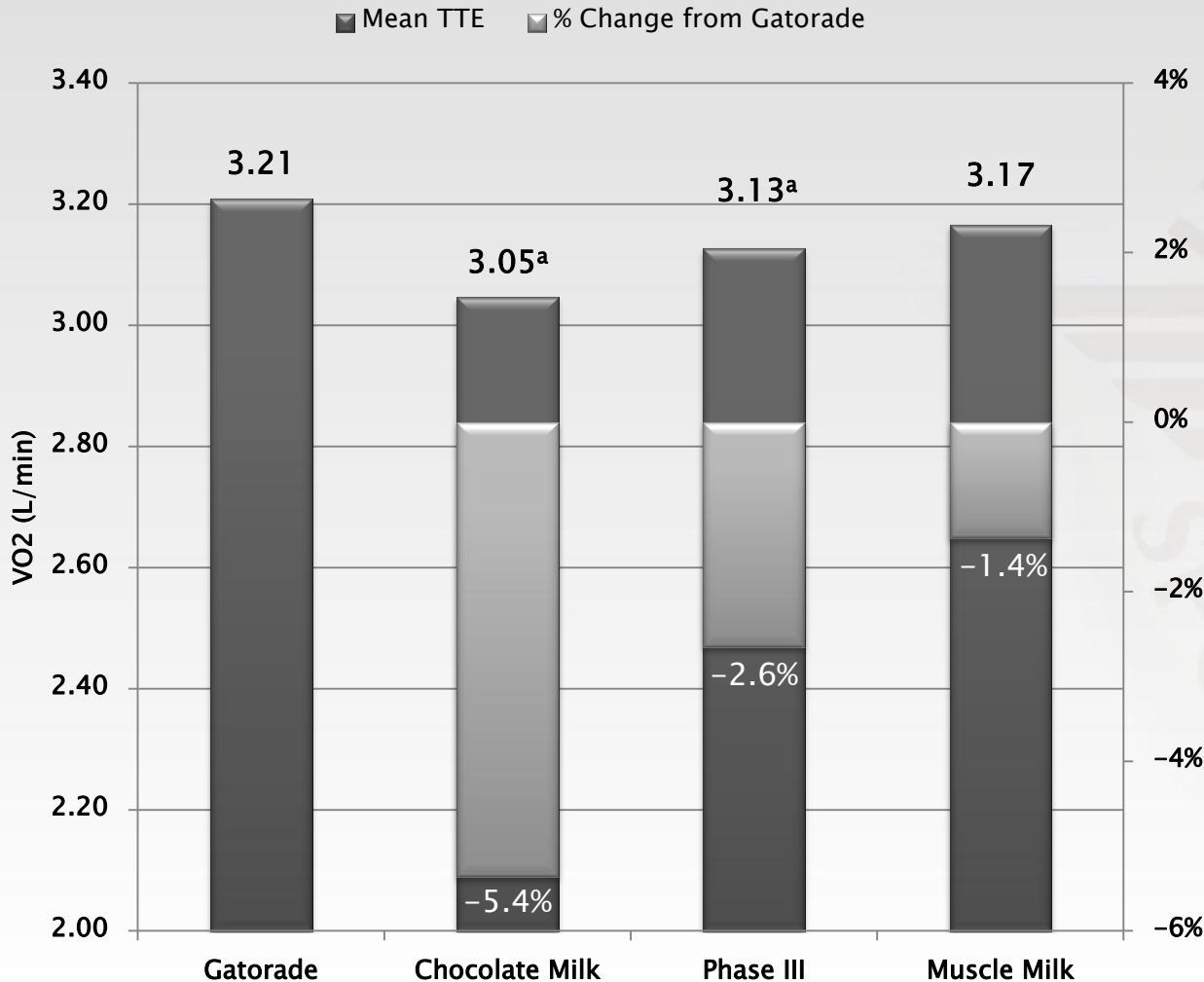
<sup>a</sup> = Significantly greater than Gatorade

# Main Findings



**PHASE III**  
RECOVERY

## VO<sub>2</sub> 5min into 70% VO<sub>2</sub>peak



- Phase III and Chocolate Milk significantly decreased the amount of oxygen needed during exercise at 70% max.
- There was no significant difference between Chocolate Milk, Phase III, and Muscle Milk.
- Muscle Milk was not significantly different than any drink.

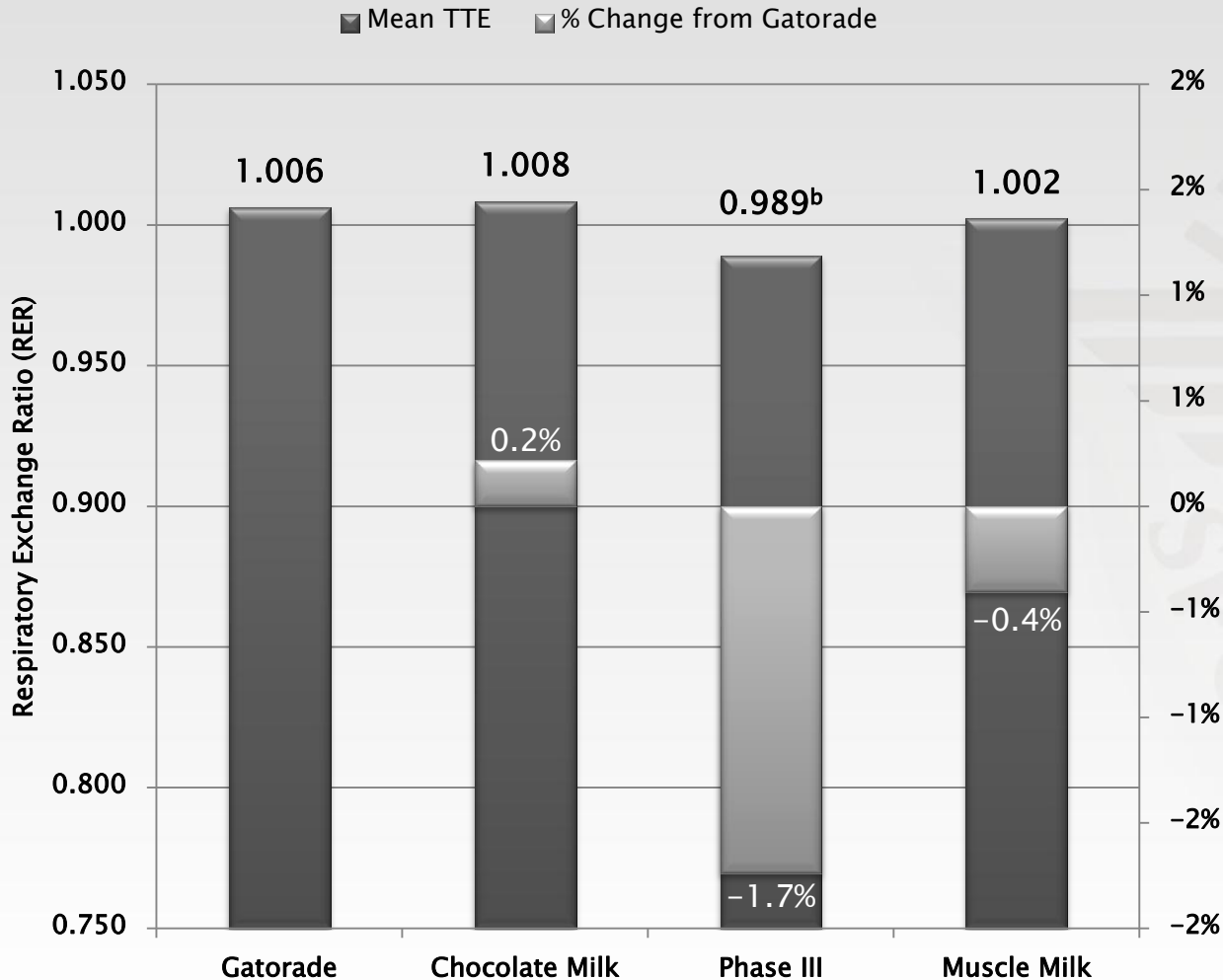
a = Significantly greater than Gatorade



# Main Findings

**PHASE III**  
RECOVERY

## RER 5min into 70% VO<sub>2</sub>peak



- Phase III Utilized significantly more fat during exercise at 70% max compared to Chocolate Milk.
- There was no significant difference between Chocolate Milk, Gatorade, and Muscle Milk.
- Muscle Milk and Gatorade were not significantly different than any drink.

<sup>b</sup> = Significantly greater than Chocolate Milk



- No significant differences between drinks regarding hydration.
  - Body weight
  - Urine Specific Gravity
  - Urine Color
- No significant differences between drinks regarding resting oxygen and fat use.
  - VO<sub>2</sub> at rest
  - RER at rest
- No significant differences between drinks regarding energy, mood, and hunger.
  - Satiety
  - Positive/negative moods



## Endurance Capacity at 70% max

- Phase III, with a 47, 46, 7 carbohydrate, protein, and fat content (%), provided greater recovery (observed by improved performance) compared to Gatorade and Chocolate Milk with a slight (non significant) improvement compared to Muscle Milk (25, 50, 25).
  - Muscle Milk and Chocolate Milk can only claim to be better than Gatorade
- Compared to Gatorade, Phase III required less oxygen (suggesting greater glycogen resynthesis) during exercise following a typical hard training session and 4 hours of rest.
  - Chocolate Milk was also significantly less compared to Gatorade and Muscle Milk was not significantly different than any of the drinks.
- Compared to Chocolate Milk, Phase III burned more fat during exercise following a typical hard training session and 4 hours of rest.
  - This was the only significant difference between drinks.

## Endurance Capacity at 115% max

- Of the 3 drinks, only Phase III provided significantly greater recovery (observed by improved performance) compared to Gatorade.
  - Muscle Milk and Chocolate Milk can only claim to be the same as Gatorade



**By consuming roughly one drink (16.6oz) you may experience the following:**

- 16% greater recovery compared to Gatorade
- 13% greater recovery compared to Chocolate Milk
- Greater recovery compared to Gatorade or Chocolate Milk
- Burn 2% more fat during exercise compared to Chocolate Milk
- Burn more fat during exercise than Chocolate Milk
- Get the same rehydration as Gatorade, Chocolate Milk, and Muscle Milk
- Feel the same satisfaction after drinking Phase III after a workout as Gatorade, Chocolate Milk, and Muscle Milk

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