



# **A Clinical Trial to Assess the Efficacy of a Plant-based Energy Shot on Focus and ADHD-like Symptoms**

## *Clinical Study*

Author: Citruslabs research team

*Citruslabs, 1639 11th Street, Santa Monica, USA  
Created April 23, 2023*

---

### **Abstract**

Many people struggle with ADHD-like symptoms, such as difficulty staying focused, staying still, and attention deficits. Research has suggested that combining Caffeine and L-Theanine can reduce jitters, heighten concentration, and cognitive alertness while also acting as a mood booster. This trial examines the efficacy of the Proper Wild energy shot in improving these symptoms over a 28-day trial. Participants consumed the energy shot once daily for 28 days and completed surveys at multiple time points across the trial. Participants reported on the surveys that they had positive improvements in concentration, mood, brain fog, and task initiation across the 28-day trial. All parameters evaluated demonstrated a significant improvement by Day 28. Compared to other caffeinated drinks, participants experienced fewer jitters, gastrointestinal symptoms, and feelings of anxiety. Overall, the Proper Wild energy shot majorly improves focus and ADHD-like symptoms over 28 days and reduces the number of caffeinated drinks people require to get through the day.

---

### **1. Introduction**

ADHD is a neurodevelopmental disorder that affects both children and adults. It is characterized by persistent inattention, hyperactivity, and impulsivity that interfere with daily activities. People with ADHD have difficulty paying attention and staying focused, often have trouble sitting still, and may act impulsively without thinking about the consequences. These symptoms can vary in intensity and frequency and change over time.

While it is most often diagnosed in childhood, ADHD can continue into adulthood and is estimated to affect 4-5% of adults<sup>1</sup>. The exact prevalence of undiagnosed ADHD is difficult to determine, as many individuals with ADHD may not have been diagnosed or misdiagnosed with another condition. However, studies suggest that many individuals with ADHD remain undiagnosed, particularly adults. Studies have indicated that up to 75% of adults with ADHD are undiagnosed or misdiagnosed<sup>2</sup>. Several factors can contribute to undiagnosed ADHD,



including a lack of awareness and understanding of the condition, the stigma associated with mental health conditions, and difficulties accessing healthcare resources.

Therefore, many people who remain undiagnosed, or suffer from ADHD-like symptoms, may not receive suitable treatments or supplements to improve their outcomes. Additionally, the most common treatment for those diagnosed with ADHD is stimulant-based medications. Stimulant medications, such as Ritalin, Adderall, and Concerta, can help to improve focus and reduce impulsiveness and hyperactivity. Unfortunately, these medications have common side effects, including decreased appetite, trouble sleeping, and anxiety.

Therefore, people with ADHD-like symptoms are actively seeking more natural remedies for their symptoms. Multiple studies support that using Caffeine and L-Theanine together can reduce jitters, heighten concentration and cognitive alertness, and boost your mood<sup>3,4</sup>.

Proper Wild has created an all-natural energy shot containing these active ingredients. In addition, Proper Wild contains organic caffeine from green tea and L-Theanine (a naturally occurring amino acid also found in Green Tea) derived from green tea. Proper Wild is believed to provide long-lasting energy and cognitive benefits without the jitters, anxiety, and gastrointestinal issues experienced with coffee consumption. This study will evaluate the efficacy of Proper Wild Energy shots to improve ADHD-like symptoms.

## **2. Methods**

### ***Participants***

A total of 40 participants were recruited for this study. All participants satisfied the following inclusion and exclusion criteria.

#### *Inclusion criteria:*

- Currently experiencing symptoms associated with ADHD, including
  - Impulsiveness.
  - Disorganization and problems prioritizing
  - Poor time management skills
  - Problems focusing on a task
  - Trouble multitasking
  - Excessive activity or restlessness
  - Poor planning
- Age 18-55
- Self-reported issues with focus and/or productivity
- Generally healthy - don't live with any uncontrolled chronic disease

#### *Exclusion criteria:*

- Currently taking prescription medication for ADHD
- Currently supplementing with L-Theanine.
- Known to respond negatively to caffeine (no effect, makes them sleepy or feel unwell)
- People with a high caffeine tolerance, defined as regular consumption of >400mg of caffeine (>4 coffees) per day.
- Any pre-existing chronic conditions that would prevent participants from



adhering to the protocol, including oncological and psychiatric disorders.

- Anyone with known severe allergic reactions.
- Women who are pregnant, breastfeeding, or attempting to become pregnant
- Unwilling to follow the study protocol.

### ***Study Design***

This virtual study required participants to take the product and complete questionnaires at home. Consent forms describing the study process, instructions, evaluation methods, and bill of rights were provided to participants before study onboarding. Following the consent process, participants completed the baseline survey evaluating ADHD-like symptoms, their usual caffeine intake, and reported side effects. Participants were then instructed to use the product in line with specific guidance provided by the sponsor. Participants used the product for 28 days by drinking one bottle of Proper Wild daily to replace their first caffeinated beverage. Participants completed a questionnaire on day 1, at least 6 hours after consumption of their first bottle of Proper Wild, to evaluate the immediate effects of the product. Participants also completed questionnaires on day 14 and day 28. Responses were compared from each check-in to baseline to assess improvements in ADHD-like symptoms and benefits of the product over other caffeinated drinks.

### ***Data Analysis & Statistics***

Data was collected using a textual 5-point Likert scale for each question, such as “Never” to

“Always.” Symptom-related questions were conducted at baseline and each check-in. The textual Likert data was transformed into numerical values of 1-5, where the highest frequency was rated five, and the lowest frequency was rated one. Therefore a reduction in score in the “How often do you struggle to X” questions indicates improvement. An increase in the mean score indicates an improvement in positively connotated responses (Mood, duration of positive effects).

Data were checked for normality using the Pearson test. A repeated measure analysis was used to compare participant outcomes at each check-in on Day 14 and Day 28 to their baseline response. Data were analyzed using the repeated-measure one-way ANOVA or Friedman Tests based on the normality of the data. Statistical analyses were performed in GraphPad Prism 9.0, and the significance level was set at 0.05. For product-specific questions evaluated only at 6 hours and Day 28, results were presented as % of subjects reporting each answer on the textual Likert scale.

## **3. Results**

### **3.1 Proper Wild is well received by participants after first use**

At least 6 hours after consuming their first bottle of Proper Wild, participants responded to product evaluation questions on an agreement, satisfaction, and positivity scale. Responses were structured on a ‘strongly disagree’ to ‘strongly agree’ scale. The ‘strongly agree’ and ‘agree’ responses were combined into a single ‘combined agree’ outcome to better evaluate the overall agreement with the tested parameters.



The same was completed for “Very satisfied” and “Satisfied,” and “Very positive” and “positive” responses. Participants were also asked to rate how long the product’s positive effects lasted (Table 1).

Combined agreed responses ranged from 33% to 60% across all parameters evaluated (Table 1). Notably, 60% were satisfied with the increased focus and concentration provided by Proper Wild, and 55% reported noticeable improvements in their mental clarity and cognitive performance within 1 hour of drinking Proper Wild.

Over 50% of participants reported they were satisfied with the energy provided by Proper Wild, that the energy shot noticeably improved their productivity, and that Proper Wild outperformed their usual caffeinated drink in terms of the increased concentration, focus, and energy provided. In addition, 65% reported that the positive effects, such as improved focus and energy, lasted more than 3 hours after consumption. Apart from Proper Wild, the mean number of caffeinated drinks consumed that day was only 0.675.

### **3.2 Proper Wild significantly improves a range of ADHD-like symptoms**

All subjects self-scored their ADHD-like symptoms across various relevant parameters on a 5-point textual Likert scale at baseline, after 14 days, and 28 days of using the test product. Textual Likert responses were converted to 1 - 5, where the highest frequency was rated five, and the lowest frequency was rated one. Therefore a reduction in score in the “How often do you struggle to X” questions indicates improvement.

Likewise, an increase in the mean score indicates an improvement in positively connotated responses (Mood, duration of positive effects). Statistical analysis compared the responses at each check-in to the baseline measure.

By Day 14 of product use, 19 of the 20 evaluated parameters showed a statistically significant improvement from baseline ( $P < 0.05$ , Table 2). ‘Mood’ was the only parameter that had not improved significantly by Day 14. However, this was resolved by Day 28, whereby all 20 parameters significantly improved compared to the baseline. These positive results suggest that even 14 days of product usage is sufficient to experience significant improvements in ADHD-like symptoms. For mood changes, a longer time frame is necessitated.

### **3.3 Proper Wild users are satisfied with the product and results**

On Day 28, a range of perceived product benefits and participant opinions were evaluated using a ‘strongly disagree’ to ‘strongly agree’ scale. Overall, the test product received positive responses from participants, with an average of 80.41% recording agreement with the seven parameters evaluated (Table 3). Notably, 89.5% of participants agreed that drinking a Proper Wild shot in the morning reduced the number of caffeinated drinks needed to get through their day. In addition, 80.0% of participants agreed that they would recommend the product to a friend, and 82.5% agreed that the product made their day more productive. Finally, 84.6% also agreed that they did not experience any adverse



side effects they sometimes get with coffee, such as stress, anxiety, jitters, or stomach upset. Overall these results are overwhelmingly positive and highlight the participants' satisfaction with the results of the product.

#### **4. Discussion**

This study provides data on the effect of the Proper Wild energy shot on a range of ADHD-like symptoms, examined via participants' perceived benefits. In particular, participants were asked to consider the product compared to other caffeinated drinks. All parameters were compared between baseline, Day 14, and Day 28, with all evaluated symptom parameters showing significant improvement after 28 days of product use. In addition, 19 of the 20 parameters had shown considerable improvement by Day 14, suggesting that improvements are already well established after only two weeks of use.

After the first day of use, participant responses were variable, ranging between 33-60%. However, this is in contrast with responses gathered from the end of the study (Day 28), whereby all responses were overwhelmingly positive at over 72% agreement and an average of 80.41%. This highlights increased user satisfaction with more extended use of the product and suggests better results are seen with consistent use.

#### **5. Conclusion**

The Proper Wild energy shot improves ADHD-like symptoms, including attention and concentration, as well as brain fog, mood, and

feelings of stress. Participants were also positive about their perception of the product, noticing improved productivity and task initiation. The Proper Wild energy shot is generally well-received, with most participants reporting they would continue using the product and recommend it to a friend. Most participants agreed that Proper Wild reduced the number of caffeinated drinks required to get through the day without causing any nasty side effects sometimes associated with coffee, such as stress, anxiety, jitters, or stomach upset.

#### **References**

1. Attention-Deficit/Hyperactivity Disorder (ADHD). National Institute of Mental Health (NIMH). Accessed February 11, 2023. <https://www.nimh.nih.gov/health/statistics/attention-deficit-hyperactivity-disorder-adhd>
2. Targum SD, Adler LA. Our Current Understanding of Adult ADHD. *Innov Clin Neurosci*. 2014;11(11-12):30-35.
3. Dodd FL, Kennedy DO, Riby LM, Haskell-Ramsay CF. A double-blind, placebo-controlled study evaluating the effects of caffeine and L-theanine both alone and in combination on cerebral blood flow, cognition and mood. *Psychopharmacology (Berl)*. 2015;232(14):2563-2576. doi:10.1007/s00213-015-3895-0
4. Giesbrecht T, Rycroft JA, Rowson MJ, De Bruin EA. The combination of L-theanine and caffeine improves cognitive performance and increases subjective alertness. *Nutr Neurosci*. 2010;13(6):283-290. doi:10.1179/147683010X12611460764840



**Table 1. Product feedback after first consumption.** Participants responded to the study questionnaire 6 hours or more after consuming Proper Wild on the first day of the study intervention.

Question	Combined Positive	Really positive	Positive	It was alright	Negative	Really negative
What was your first impression of Proper Wild overall?	48%	20%	28%	48%	5%	0%
What was your first impression of the taste of Proper Wild?	33%	18%	15%	20%	25%	23%
	Combined Satisfied	Very satisfied	Satisfied	Neither satisfied nor dissatisfied	Dissatisfied	Very dissatisfied
How satisfied were you with the energy provided by Proper Wild?	58%	20%	38%	35%	8%	0%
How satisfied were you with the increased focus and concentration provided by Proper Wild?	60%	23%	38%	30%	10%	0%
	Combined agree	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
The Proper Wild energy shot noticeably improved my productivity.	53%	20%	33%	33%	13%	3%
The Proper Wild energy shot provided LONG LASTING improvements in focus and concentration.	44%	18%	26%	46%	8%	3%
I could feel noticeable improvements in my mental clarity and cognitive performance within 1 hour of drinking Proper Wild, a feeling of my brain 'switching on'.	55%	20%	35%	23%	20%	3%
Proper Wild outperformed my usual caffeinated drink (coffee, energy drink etc) in terms of the increased concentration, focus and energy provided.	54%	23%	31%	33%	10%	3%
How many additional (not including Proper Wild) caffeinated beverages did you drink today?	0.675	Mean number of caffeinated drinks				
	Combined 3+ Hours	0-1 hours	1-2 hours	3-4 hours	4-5 hours	Over 5 hours
After drinking Proper Wild, how long did the positive effects last, such as improved focus, energy etc?	65%	6.5%	29.0%	38.7%	16.1%	9.7%



**Table 2. Mean Likert scores, standard deviation (SD), and statistical significance of each parameter throughout the study period.** Textual Likert responses were converted to values of 1 - 5, where the highest frequency was rated 5 and the lowest frequency was rated 1. Therefore a reduction in score in the “How often do you struggle to X” questions indicates improvement. For positively connotated responses (Mood, duration of positive effects), an increase in mean score indicates improvement.

Question	Baseline		Day 14			Day 28			
	Mean	SD	Mean	SD	P-Value	Mean	SD	P-Value	% Improvement
How often do you struggle to focus or concentrate on a task?	4.03	0.42	2.74	0.79	<0.0001	2.38	0.84	<0.0001	41.0%
How often do you struggle with productivity?	3.83	0.64	2.65	0.89	<0.0001	2.35	0.83	<0.0001	38.6%
How often do you struggle with starting a new task?	3.95	0.50	2.65	0.83	<0.0001	2.18	0.84	<0.0001	44.9%
How often do you struggle with brain fog?	3.90	0.81	2.48	1.01	<0.0001	2.03	0.89	<0.0001	48.1%
How often are you easily distracted?	3.95	0.68	2.73	0.91	<0.0001	2.25	0.87	<0.0001	43.0%
How would you rate your mood?	3.18	0.71	3.60	0.81	0.0883	3.78	0.80	0.0029	18.9%
On average, how many caffeinated beverages do you drink per day?	1.89	1.27	0.95	0.88	0.0001	1.20	2.22	0.0007	36.5%
After drinking a caffeinated beverage (baseline)/ Proper Wild (Day 14/28), how long do the positive effects usually last, such as improved focus, energy?	1.86	0.81	3.18	0.94	<0.0001	3.23	0.96	<0.0001	74.0%
How often do you feel jittery after consuming a caffeinated drink (baseline)/ Proper Wild (Day 14/28)?	2.49	0.93	1.35	0.53	<0.0001	1.33	0.62	<0.0001	46.4%
How often do you feel anxious after consuming a caffeinated drink (baseline)/ Proper Wild (Day 14/28)?	2.32	1.00	1.50	0.75	0.0028	1.25	0.49	<0.0001	46.2%
How often do you feel stressed after consuming a caffeinated drink (baseline)/ Proper Wild (Day 14/28)?	2.11	0.91	1.30	0.58	0.0005	1.30	0.70	0.0005	38.5%
How often do you experience a sudden energy crash several hours after drinking a caffeinated drink (baseline)/ Proper Wild (Day 14/28)?	2.89	1.10	1.58	0.84	0.0006	1.48	0.78	<0.0001	49.0%



<b>How often do you suffer from stomach issues after consuming a caffeinated drink (baseline)/ Proper Wild (Day 14/28), such as heartburn, abdominal pain or stomach discomfort?</b>	2.11	1.04	1.48	0.78	0.0368	1.33	0.80	0.0036	37.2%
<b>How often do you have trouble wrapping up the final details of a project, once the challenging parts have been done?</b>	3.43	0.75	2.00	0.93	<0.0001	1.83	0.93	<0.0001	46.7%
<b>When you have a task that requires a lot of thought, how often do you avoid or delay getting started?</b>	3.88	0.65	2.38	0.96	<0.0001	2.18	0.94	<0.0001	43.8%
<b>How often do you feel overly active and compelled to do things, like you were driven by a motor?</b>	2.70	0.88	1.65	0.86	<0.0001	1.51	0.82	<0.0001	44.0%
<b>How often do you make careless mistakes when you have to work on a boring or a difficult project?</b>	3.05	0.88	1.86	0.79	<0.0001	1.74	0.69	<0.0001	43.1%
<b>How often do you have difficulty keeping your attention when you are doing boring or repetitive work?</b>	3.92	0.53	2.13	0.91	<0.0001	2.08	0.84	<0.0001	47.1%
<b>How often do you have difficulty concentrating on what people say to you, even when they are speaking to you directly?</b>	3.35	0.77	2.03	0.87	<0.0001	1.90	0.90	<0.0001	43.3%
<b>How often are you distracted by activity or noise around you?</b>	3.90	0.87	2.28	0.91	<0.0001	2.39	0.97	<0.0001	38.6%





**Table 3. End of Study Product Satisfaction Questionnaire.**

Question	Combined Agree	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
Drinking a Proper Wild shot in the morning reduced the number of caffeinated drinks I needed to get through my day.	89.5%	55.3%	34.2%	7.9%	2.6%	0.0%
I would continue using this product.	72.5%	42.5%	30.0%	5.0%	15.0%	7.5%
I would recommend the product to a friend.	80.0%	57.5%	22.5%	5.0%	12.5%	2.5%
Proper Wild made my days more productive.	82.5%	37.5%	45.0%	7.5%	7.5%	2.5%
Proper Wild enabled me to focus and concentrate better on tasks.	77.5%	37.5%	40.0%	10.0%	10.0%	2.5%
Proper Wild reduced my brain fog.	76.3%	34.2%	42.1%	15.8%	5.3%	2.6%
After drinking Proper Wild, I did not experience any of the nasty side effects I sometimes get with coffee, such as stress, anxiety, jitters or stomach upset.	84.6%	61.5%	23.1%	5.1%	10.3%	0.0%

**Appendix A: Potential Marketing Claims**

**(Please consult an attorney before using any claims- these are just example claims from the data that could be used)**

- 89.5% of participants agreed that drinking a Proper Wild shot in the morning reduced the number of caffeinated drinks they need to get through the day.
- Proper Wild significantly improved a range of ADHD-like symptoms.
- After only 14 days of use, Proper Wild significantly improved:
  - Concentration
  - Task initiation
  - Brain fog
- After 28 days, there was a significant improvement in mood.
- Compared to other caffeinated drinks, participants felt:
  - Less jittery
  - Less anxious
  - Less stressed
  - Longer lasting positive effects, such as improved focus, and energy
  - Fewer stomach issues, such as heartburn, abdominal pain or stomach discomfort
- After 28 days of using Proper Wild:
  - 82.5% of participants agreed that Proper Wild made their days more productive.
  - 77.5% of participants agreed that Proper Wild enabled them to focus and concentrate better on tasks.



- 72.5% of participants agreed they would continue using the product.
- 80% of participants agreed they would recommend the product to a friend.
- After the first use, 65% of participants reported the positive effects of Proper Wild lasted for 3 or more hours.
- 55% of participants felt a noticeable improvement in their cognitive performance and a feeling of their brain 'switching on' within 1 hour of drinking their first Proper Wild energy shot.