



**MANAGING
Side Effects
COMMON WITH
Amino Acid
Nutrients**



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Most patients are able to take amino acid nutrients without any side effects. The following is intended to be informative for healthcare professionals managing patients experiencing side effects from amino acids.

Our understanding of side effects comes from scientific research using a randomized group of 494 patients over multiple clinical visits. Patients used for this analysis were only taking the nutrients found in CHK Nutrition's Amino Acid line with no additional nutrients or medications.

SIDE EFFECTS – The Best Approach Starts with Information

The best way to help your patients and to prevent them from permanently ending amino acid nutritional support is to educate them in advance that some patients experience side effects when starting amino acid nutrients.

Instruct your patient to temporarily stop their amino acid supplements if they experience a side effect until they are able to consult with you on how to best manage this issue.

The best way to help your patients be successful when starting amino acid supplements is to schedule a follow-up visit for one week after they start their supplements. In addition, it is recommended patients have a follow-up visit one week after a dosing change to ensure that they are getting the best support and management for potential side effect issues. For information on dosing changes, please consult our *Overview of Amino Acid Dosing*.

Another way to help your patients is to encourage them to track when they take their pills. This can be done using an app, paper and pen or the dosing sheet that CHK Nutrition has created, which can be found at <http://chknutrition.com/wp-content/uploads/2017/08/CHK-Dosing-Protocol.pdf>

► **Gastrointestinal (GI) Upset**

GI upset is the most common side effect reported by patients (approximately 2%). There are a number of ways that patients have reported GI upset. They may experience nausea, bloating, gas, abdominal cramping, stomach pain, stomach pressure, stomach ache, loose stool, or diarrhea.

The most common culprits for GI upset are:

- CysReplete
- A nutrient poor diet/carbohydrate intolerance
- Patients with seriously unbalanced neurotransmitters

Some patients report that taking one or two crackers with their pills helps prevent GI upset when first starting amino acid nutrients.

Management of GI Upset Relating to CysReplete

CysReplete is the most common source of GI upset; it usually presents with heartburn and nausea. This is due to the acidic nature of cysteine, which contains a sulfur compound.

Twenty percent of patients taking CysReplete in the morning experience GI upset. The mechanism of action is unknown. But, since a high percentage of patients have this reaction, it is recommended that all patients avoid taking CysReplete before noon. For many patients, this avoids the possibility of GI upset.



The ideal dosing for CysReplete is 2 pills just after noon, 2 pills approximately 4 to 5 hours before bedtime and 2 pills at bedtime.

For those patients that take their first dose after noon and still experience GI upset, the following protocol is recommended:

1. Instruct the patient to start one CysReplete around noon. They should not take CysReplete on an empty stomach.
2. After the patient has been symptom free for 3 to 4 days, add an additional CysReplete at noon.
3. After the patient has been symptom free for 3 to 4 days, add the third CysReplete approximately 4 to 5 hours before bedtime.
4. Continue the process of adding in one pill of CysReplete after the patient has been symptom free for 3 to 4 days until the patient has reached 6 pills daily (2 pills at noon, 2 pills approximately 4 to 5 hours before bedtime and 2 pills at bedtime).

Management of GI upset Relating to a Nutrient Poor Diet/Carbohydrate Intolerance

Patients with diets high in refined sugars and certain carbohydrates may experience GI upset when taking amino acids. Most patients do not experience GI upset from all carbohydrates. Carbohydrate intolerance is selective and is not caused by all carbohydrates. GI upset from carbohydrates usually present with nausea, gas, bloating or similar stomach sensations.

Carbohydrate intolerance is usually the result of:

- A regularly eaten carbohydrate
- Nutrient poor carbohydrates such as refined sugars, white breads, noodles and cereals

While GI upset relating to carbohydrate intolerance can occur any time of the day and any time after eating, most patients with a nutrient poor diet typically experience GI problems 30 minutes to 3 hours after eating breakfast.

The easiest way to manage this form of GI upset is to have the patient track their food intake and the time that the GI upset is occurring. Then, instruct the patient to remove or change any foods believed to cause the GI upset.

The most common changes that typically help are:

- Eliminating foods with refined sugars
- Change white breads to whole or multigrain breads
- Change the type of noodles eaten
- Change a low nutrient item for a higher nutrient item

After these types of changes are implemented, most patients report that their GI upset is successfully managed if it is caused by carbohydrate intolerance.

Management of GI Upset Relating to NeuroReplete

Those patients that see the most supportive benefits from amino acid supplements may experience GI upset in the beginning. In these cases, NeuroReplete/D5 is the source of the problem (Important: NeuroReplete and D5 are core support products. Providers should recommend either NeuroReplete or D5, but do not have patients take both at the same time. For more information, consult our *Overview of Amino Acid Dosing*).



The ideal dosing schedule for NeuroReplete/D5 is 4 pills in the morning and 4 pills approximately 4 to 5 hours before bedtime.

For patients in which CysReplete and a nutrient poor diet have been ruled out as a culprit, the following protocol is recommended:

1. Instruct the patient to start one NeuroReplete/D5 at bedtime (approximately 15 minutes before falling asleep).
2. After the patient has been symptom free for 3 to 4 days, add an additional NeuroReplete/D5 at bedtime.
3. Continue adding one additional NeuroReplete/D5 after 3 to 4 symptom free days until the patient is taking 4 NeuroReplete/D5 at bedtime.
4. After 3 to 4 symptom free days, the 5th NeuroReplete/D5 should be added to the morning.
5. Continue adding one additional NeuroReplete/D5 after 3 to 4 symptom free days until the patient is taking 4 NeuroReplete/D5 in the morning and 4 NeuroReplete/D5 approximately 4 to 5 hours before bedtime.

► **Less Common Side Effects**

Heartburn without GI Upset

Heartburn without GI upset that occurs after taking pills can easily be managed. The amino acid pills are large and can become stuck in the esophagus. When this occurs, it produces an irritation that leads to heartburn. To properly manage heartburn, have patients hold the pills in their mouths for 10 to 15 seconds with a small amount of water. As the surface of the pills start to moisten, instruct the patient to swallow. This allows the pills to travel down the esophagus without getting stuck. Some patients may need to take one pill at a time in order to successfully move the pills down the esophagus.

For patients where this is not effective, have them twist open the capsules and dissolve the powder in water or juice, then drink the combination. (Note: we do not recommend opening CysReplete, as its primary ingredient contains sulfur. The smell and taste are unpleasant. For help with CysReplete, follow the

CysReplete protocol for GI upset. Please contact CHK Nutrition if further assistance is needed).

Exhaustion/Hypersomnolence

Amino acids can support healthy normal sleep. Patients that complain of extreme exhaustion when they start amino acid therapy need to have a sleep history taken. Many patients who complain of exhaustion have poor sleep histories. They will need to “pay back” the acquired “sleep debt” prior to sleeping normal. The easiest way to manage hypersomnolence is to have the patient start the amino acids on a Friday and spend the weekend sleeping. When trying to achieve normal sleep habits, changes in lifestyle and a new allocation of time (such as no longer staying up to watch television or playing on their phones) may pose a challenge to some patients.



Have you run into a side effect that you are uncertain how to manage?

Contact CHK Nutrition at 1-877-538-8388.

Note: The information presented in this guide is not treatment advice. Healthcare professionals should use their best judgment when caring for their patients.

***DISCLAIMER:** These statements have not been evaluated by the Food and Drug Administration (FDA). CHK Nutrition’s products are not intended to treat, diagnosis, cure, mitigate, or prevent any diseases.



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