

**Oxidative versus Non-oxidative dosing of High and Low Dose Intravenous Ascorbic Acid as used by Bastyr University Clinical Research Center (BCRC) and Anderson Medical Specialty Associates (AMSA)**

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**General concepts in dosing and therapeutic targeting of IVC:**

- The use of Vitamin C IV's (IVC) can be seen in two major categories:
  - Those for general immune and antioxidant support
    - These IV's contain support nutrients, and occasionally are given with Glutathione
  - Those for purely oxidative purposes
    - These generally only have minerals to balance blood electrolytes, and are generally not given with glutathione or other nutrients on the same day.
- A definitive level for the threshold of oxidation in intravenously (IV) administered ascorbate is unclear.
- Two papers [1,2] indicate that lower levels than previously considered (5-10 grams IVC) may cause oxidation and another [3] disagrees.
- Although lower doses of IVC can cause transient oxidation the likelihood of use of low dose IVC as an "oxidative therapy" is small.
  - This in no way minimizes the utility of lower dose IVC strategies.
  - These lower dose IVC formulas can have more additives and can be used for quality of life enhancement [4,5,6,7] and general nutrient support [8,9].
- Truly "oxidative" IVC formulas that have a practical longer term oxidative effect in the body likely begin at 20-25 grams and above.
  - For example the "oxidative" effect of a 10 gram IVC is real, but highly transient.
  - When employing an "oxidative strategy" with IVC the dose escalation for those purposes generally starts at 25 Grams.

**Dosing guidelines for IVC based on therapeutic target:**

- "Low Dose" IVC
  - **0.07 to 0.14 Grams per kilogram of body weight**
  - Quality of Life in cancer and other illnesses
  - General immune and antioxidant support
    - These IV's often contain support nutrients, and occasionally are given with Glutathione
- "High Dose – Oxidative" IVC [12,13,14]

- **0.4 to 1.5 Grams per kilogram of body weight**
- Those for purely oxidative purposes
  - These generally only have minerals to balance blood electrolytes [10,11] such as magnesium, calcium and potassium in their chloride salt forms and are generally not given with glutathione or other nutrients / antioxidants on the same day.

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