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**CPB Chlorella** by Designs for Health is a formulation that provides organic chlorella (*Chlorella vulgaris*), with broken cell walls to support bioavailability and help support toxin elimination and antioxidative status.

Exposure to toxins, such as heavy metals, pesticides, or mycotoxins, may occur through ingestion or inhalation of contaminated food, soil, or drinking water.<sup>1</sup> Certain toxicities, such as those associated with lead, have been shown to affect almost every organ; even trace amounts of lead may cause harmful changes in the body.<sup>1</sup> Certain molecules such as chlorella have been shown in research to help support healthy detoxification pathways and healthy liver function.

CPB Chlorella supports antioxidant status and cellular health, and promotes the body's natural clearance of toxins.

# Ingredient Highlights

- Two capsules contains 250 mg of organic chlorella (*Chlorella vulgaris*), with broken cell walls to support bioavailability
- Gluten free, dairy free, soy free, and non GMO

# **Organic Chlorella**

Chlorella (*Chlorella vulgaris*) is a unicellular microscopic green algae containing a high amount of chlorophyll a, chlorophyll b, and other potentially health supportive micronutrients, including lutein, ascorbic acid, riboflavin, and retinol.<sup>12</sup> Chlorella has been shown in research to exhibit qualities to support cellular health in the presence of certain toxins.<sup>12,13</sup> It may also help support DNA integrity and normal methylation during and after exposure to polycyclic aromatic hydrocarbons.<sup>13</sup>

Laboratory and animal studies indicate chlorella may also help support antioxidative status during toxin exposure.<sup>13,14,15</sup> A study involving hydrogen peroxide induced oxidative stress in human fibroblast cells observed that chlorella provided a protective effect on DNA integrity, telomere length, and telomere activity.<sup>16</sup> An animal study assessed the potential efficacy of chlorella administration on liver fibrosis induced by carbon tetrachloride, a common environmental toxin that has been shown to cause liver damage during chronic exposure.<sup>14</sup> Improvements in levels of reactive oxygen species were observed after chlorella administration. The authors attribute this activity the potential of chlorella to help support the gene expression of superoxide dismutase and catalase through the modulation of forkhead box protein O1 and phosphorylated 5' adenosine monophosphate activated protein kinase.<sup>14</sup> Evidence suggests that chlorella may also play a role in lipid metabolism and myoblast function and integrity.<sup>12</sup>

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# BENEFITS

- Supports healthy antioxidant status and detoxification in the GI tract
- Promotes elimination pathways

### Medicinal Ingredients (per capsule):

Refer to the product label for dosing instructions, age-appropriateness, and relative risk statements. Healthcare practitioners are encouraged to use clinical judgement with case-specific dosing based on intended goals, subject body weight, medical history, and concomitant medication and supplement usage.

### REFERENCES

For a list of references cited in this document, please visit: https://www.designsforhealth.com/api/library-assets/literature-reference---charcoal-plus-binder-tech-sheet-references