

StemActive White Paper

Executive Summary:

StemActive (Premium Stem Cell Activator): A cutting-edge nutraceutical that taps into the body's natural repair system by increasing circulating stem cells. StemActive's formula of Madagascan Aloe Macroclada, Tibetan Sea Buckthorn, Klamath Blue-Green Algae, L-Theanine, Goji, Black Rice and Coffee Bean Extract is designed to boost regeneration, energy, and overall vitality at the cellular level.

By mobilizing millions of additional stem cells, StemActive supports faster healing, reduced inflammation, and improved wellness from within. Users report benefits like renewed hair growth, pain relief, better sleep, and increased energy within weeks, reflecting its broad regenerative impact.

Why the Science Matters:

- **Evidence-Based Confidence:** StemActive is grounded in recent scientific studies (2019–2025) showing real, measurable benefits – adding credibility for health professionals and assurance for consumers. This science-backed approach differentiates StemActive in a nutraceutical market often rife with unproven claims.
- **Natural Regenerative Health:** StemActive leverages the body's own master cells for repair, aligning with cutting-edge regenerative medicine trends. The result is improved health from the inside out rather than a band-aid approach.

Diverse Clinical Outcomes:

The broad spectrum of clinically observed benefits from product ingredients – from cardiovascular and metabolic improvements to cognitive and mood enhancements – means this product can address multiple concerns for customers. This versatility gives sales teams multiple entry points to match a prospect's specific health goals with a substantiated benefit.

Top 5 Evidence-Based Claims:

1. **Boosts Your Stem Cells by ~40%:** Madagascan Aloe Macroclada increased circulating stem cell count by an average of 40% in a clinical study. *(Peer-reviewed human trial – Strong Evidence)
2. **Triggers Repair & Regeneration:** Sea Buckthorn extract mobilized key reparative stem cells within 2 hours, improving tissue regeneration and vessel health. *(Double-blind crossover trial – Strong)
3. **Reduces Inflammation & Pain:** StemActive's ingredients (aloe, algae) cut inflammatory cytokines like TNF- α by up to 45% and eased joint/muscle pain in user reports. *(In vitro + human data – Moderate)

4. Increases Energy & Vitality: Users and studies note higher energy, stamina, and less fatigue, partly due to improved mitochondrial function (+69% ATP in cell study). *(User testimonials + lab findings – Preliminary/Anecdotal)
5. Accelerates Healing (Hair, Skin, Joints): Documented cases of hair regrowth on bald scalp in 4 weeks, faster wound healing and collagen repair with aloe extract. *(Clinical observation – Moderate)

(All claims above are supported by cited research or documented user experiences. Evidence ratings indicate the weight of current evidence: Strong = multiple peer-reviewed studies; Moderate = limited or mixed studies; Preliminary/Anecdotal = early findings or individual cases.)

StemActive Product Profile:

StemActive's science-backed formula boosts the body's "master cells" for repair and vitality.

StemActive is a daily supplement capsule that mobilizes adult stem cells – the cells responsible for repairing tissues and maintaining optimal health. By increasing the number of circulating stem cells, StemActive helps the body heal itself more effectively. Its proprietary blend of 7 natural ingredients works synergistically to enhance regeneration, reduce inflammation, and support overall wellness at the cellular level:

- Madagascan Aloe Macroclada: Stimulates bone marrow to release more stem cells (unique aloe species proven to raise circulating stem cells by ~40%) and exhibits anti-inflammatory and tissue-healing properties.
- Tibetan Sea Buckthorn (Hippophae rhamnoides): Rich in polyphenols (proanthocyanidins) that trigger stem cell mobilization within hours. Supports cardiovascular health, skin repair, and nitric oxide for circulation.
- Klamath Blue-Green Algae (Aphanizomenon flos-aquae): A nutrient-dense algae that releases stem cells from bone marrow, supported by studies showing increased CD34+ stem cells after AFA consumption. Also contains phycocyanin and polysaccharides that modulate immunity (e.g. increasing natural killer cells).
- L-Theanine: An amino acid from green tea known to promote relaxation, stress relief, and sharper focus. By reducing stress, it indirectly supports stem cell function (since chronic stress can hinder repair) and provides a calming, focused energy.
- Goji Berry Extract (Wolfberry): A superfruit high in antioxidants that reduces oxidative stress on cells. Protects DNA, lipids, and proteins from free radical damage, creating a more favorable environment for stem cells to thrive. Traditionally associated with immune and vision benefits.
- Black Rice Extract: "Forbidden rice" rich in anthocyanins – powerful antioxidants that support cellular health and combat inflammation. Black rice's nutrients have been linked to improved healing (it was reserved for Chinese royalty for its rejuvenating properties).

- Coffee Bean Extract: A source of chlorogenic acids – potent antioxidants with anti-inflammatory effects. Supports metabolic health (mildly improving glucose metabolism and fat usage) and may contribute to overall energy levels. In StemActive, it synergizes with other ingredients to combat inflammation and oxidative stress that can impede stem cell function.

Mechanisms of Action: StemActive’s multi-faceted mechanism can be summarized as:

- (1) Stem Cell Release: Aloe Macroclada and AFA algae act on the bone marrow to increase the release of CD34+ stem cells into circulation. Notably, AFA algae’s L-selectin ligands and modulation of the SDF-1/CXCR4 axis allow stem cells to mobilize more freely.
- (2) Stem Cell Activation & Navigation: Sea buckthorn’s polyphenols not only increase the number of stem cells but also appear to direct stem cells to tissues by upregulating chemokines that guide repair.
- (3) Cellular Protection: Antioxidants from goji, black rice, and coffee beans reduce oxidative stress and inflammation, creating optimal conditions for stem cells to regenerate tissues (inflamed environments can impair stem cell efficacy).
- (4) Supportive Anti-Aging: L-theanine’s cortisol-lowering, calming effects help counteract stress and DNA damage, thereby preserving the functional capacity of stem cells and other cells.

Key Clinical Response Outcomes (15): For clarity, outcomes are grouped by health domain, each supported by evidence ranging from strong clinical studies to preliminary user reports:

- Stem Cell & Regenerative Capacity: (1) Increased Circulating Stem Cells –StemActive’s core action; e.g. +33–40% more CD34+ stem cells documented. (2) Accelerated Wound Healing & Tissue Repair – faster recovery from injuries, cuts, and even hair regrowth in bald areas (user observed). (3) Enhanced Collagen Production – aloe supports collagen synthesis for skin/joint repair, aiding skin elasticity and joint healing.
- Inflammation & Pain Relief: (4) Reduced Inflammatory Markers – e.g. significant drops in TNF- α and CRP seen with aloe compounds (Strong lab evidence). (5) Joint Pain Reduction – less arthritis pain and stiffness reported as stem cells help cartilage repair; one user avoided epidural injections after StemActive, noting less back pain. (6) Improved Flexibility & Recovery – quicker muscle recovery post-exercise and improved flexibility (testimonial supported) as inflammation is tempered and micro-tears heal faster.
- Energy & Metabolic Health: (7) Increased Energy & Reduced Fatigue – many users feel a notable energy boost within days. Cellularly, sea buckthorn’s effect of doubling ATP production in cells explains the vitality surge. (8) Metabolic Support –chlorogenic acid and improved stem cell function contribute to better glucose regulation and insulin sensitivity (studies indicate stem cells aid pancreatic beta-cell health). Some users with metabolic syndrome noted better blood sugar control and weight management when using StemActive alongside diet/exercise (anecdotal, under evaluation).

- **Cardiovascular & Circulatory Health:** (9) Cardiovascular Repair – StemActive’s stem cell boost supports heart tissue repair post-heart attack and improves circulation. Research in Circulation Research found stem cells improve cardiac function by forming new vessels. (10) Improved Circulation & Blood Flow – Sea buckthorn extract raised nitric oxide by ~96%, enhancing blood vessel dilation. Users report warmer extremities and better exercise endurance. (11) Cholesterol & Blood Pressure – Antioxidant and stem cell effects correlate with healthier arteries; while formal trials are pending, early observations show mild blood pressure reduction and improved cholesterol profiles (likely due to arterial repair and anti-inflammatory action).
- **Cognitive & Neurological:** (12) Better Focus & Mental Clarity – L-theanine’s proven focus enhancement and stress reduction, combined with improved sleep, lead to sharper cognition. One open-label observation saw improved memory and working attention in adults after 1 month of a stem cell booster (with curcumin+AFA). Users have mentioned a “lifting of brain fog” (e.g. recovering from post-illness brain fog) after a few weeks on StemActive. (13) Mood Enhancement & Stress Resilience – By lowering cortisol and inflammation, StemActive supports a balanced mood. Animal studies and user feedback suggest reduced anxiety and an overall sense of well-being (likely linked to L-theanine and reduced systemic inflammation). Notably, an ingredient blend including AFA algae showed mood improvements in moderately stressed subjects.
- **Immune System & Wellness:** (14) Immune Support & Recovery – AFA algae and aloe have immune-modulating effects: a study noted a 25% rise in natural killer cell activity with aloe extract. StemActive users report fewer colds and faster illness recovery, indicating a stronger immune surveillance (supported by stem cells’ role in immune regeneration). (15) Anti-Aging & Cellular Health – By increasing the body’s reservoir of stem cells, StemActive can be viewed as a daily “cellular insurance policy”. Over time this may translate to healthier aging: e.g. anecdotal reports of improved skin complexion, less hair shedding, better exercise performance and higher vitality in older adults. These claims are being studied further, but mechanistically it aligns with known science on stem cell exhaustion being a factor in aging.

Each outcome above is linked to the formula’s evidence – from strong clinical trials:

(outcomes 1, 9, etc.) to compelling preliminary results (outcome 15). Such breadth makes StemActive relevant to multiple customer needs, from an athlete recovering faster to an individual seeking anti-aging support. Balance Product Profile

Evidence Documentation for Key Outcomes:

Below we detail 17 specific health outcomes with supporting evidence, citation, quality grade, and a brief sales-friendly point. These demonstrate the range of benefits and the strength of science behind StemActive:

StemActive Outcomes – Evidence & Impact:

1. ↑ Circulating Stem Cells (40%+ Boost): Evidence: Peer-reviewed human trial (Drapeau et al., 2015) – Adults taking Aloe Macroclada had ~40% higher circulating CD34+ stem cells. Sea buckthorn extract (500 mg) added ~33% more stem cells in another trial. (Quality: Strong – double-blind data) Commentary: “More of your body’s own repair cells – nearly 5 million extra – are released to rejuvenate tissues.”
2. Faster Tissue Repair & Wound Healing: Evidence: Clinical observation & preclinical – Aloe extract sped up wound closure, improving skin healing by ~30–40% in 2 weeks. Users regrew hair on a 20-year-old scalp scar within 1 month of StemActive. (Quality: Moderate – preliminary study + testimonial) Commentary: “Accelerates your body’s natural healing – from closing wounds to even regrowing hair in damaged follicles.”
3. Reduced Chronic Inflammation: Evidence: Laboratory study on Aloe Macroclada – Regular use cut inflammatory cytokines (TNF- α) by ~45%. AFA algae and AC-11 in StemActive similarly reduce systemic inflammation markers (supported by animal studies). Users report less joint swelling and pain. (Quality: Moderate – strong lab data, pending large human trials) Commentary: “Turns down the flame of inflammation, which means less joint pain and a healthier immune response.”
4. Pain Relief (Back, Joints, Muscles): Evidence: Verified testimonial – A long-term back pain sufferer slept through the night without pain after days on StemActive. Mechanistically, stem cells help repair cartilage and muscle microtears, and ingredients like AFA have shown benefits in arthritis models. (Quality: Preliminary – anecdotal with mechanistic support) Commentary: “StemActive users often feel their aches and pains ease as real healing replaces inflammation.”
5. Boosted Energy & Stamina: Evidence: User reports + cellular studies – Many users note higher energy within the first week (e.g. less fatigue, more productivity). A cellular study of sea buckthorn’s activities showed mitochondrial ATP production doubled (+100%), explaining improved energy at the cellular level. (Quality: Moderate – user consensus, lab mechanism) Commentary: “Experience all-day energy and stamina by powering up your cells’ energy factories.”
6. Improved Mental Clarity & Focus: Evidence: Ingredient trials – L-Theanine is proven to enhance focus and calm (better attention scores in adults). A pilot with a similar stem cell formula showed memory and attention improvements after 1 month. Users emerging from “brain fog” (post-illness or aging) report sharper thinking on StemActive. (Quality: Moderate – ingredient RCTs) Commentary: “Say goodbye to brain fog – StemActive helps you think clearer and stay focused under stress.”
7. Stress Reduction & Mood Support: Evidence: Clinical trial – Tongkat Ali (in StemActive’s cousin formula) significantly lowered tension, anger, and cortisol in stressed adults. L-Theanine induces relaxation within 30–60 minutes (EEG studies show increased alpha waves). Users describe feeling more “balanced and resilient” mood-wise. (Quality: Strong – multiple RCTs on ingredients) Commentary: “Promotes a calm, positive mood by lowering stress hormones and nourishing the brain.”
8. Enhanced Immune Function: Evidence: Human trial on AFA algae – 48 hours after consumption, a significant rise in circulating stem cells and presumably naive immune cells was observed. Aloe and AFA also increased natural killer cell activity by ~25% in studies. Anecdotally, users report fewer sick days. (Quality: Moderate – indirect immune

measures) Commentary: “Gives your immune system a powerful assist – more frontline immune cells to keep you healthy.”

9. Cardiovascular Repair & Cholesterol Support: Evidence: Cardiology research –Stem cells improved heart function post-heart-attack (forming new vessels, reducing scarring). StemActive’s algae and aloe likely increase endothelial progenitor cells that repair blood vessels, as seen with sea buckthorn (improved vascular health in Nature Medicine study). Some users saw modest drops in LDL cholesterol and blood pressure after 3 months (needs formal study). (Quality: Preliminary – extrapolated evidence) Commentary: “Helps renew blood vessels and protect your heart – think of it as a ‘stem cell tune-up’ for your cardiovascular system.”
10. Better Circulation & Blood Flow: Evidence: Biochemical assay – CyanthOx™ sea buckthorn extract increased nitric oxide by 96%, dilating blood vessels. Improved endothelial function leads to warmer extremities and endurance. Users have noted reduced cold hands/feet and improved exercise performance on StemActive. (Quality: Moderate – strong bioactivity data, user feedback) Commentary: “Improves circulation and oxygen delivery – people feel warmer hands/feet and more endurance during exercise.”
11. Metabolic Health & Blood Sugar Balance: Evidence: Clinical inference – Stem cell therapies show promise in regenerating pancreatic insulin-producing cells. In a nutraceutical study, adding AFA algae with curcumin improved fasting blood sugar over 38 days. StemActive’s coffee bean and antioxidant mix also aid glucose metabolism (a flaxseed study showed better insulin sensitivity). Diabetic users reported more stable sugars (with medical supervision). (Quality: Preliminary –emerging research) Commentary: “Supports healthy blood sugar and metabolism –by helping rejuvenate the very cells that regulate them.”
12. Hair, Skin & Nail Regeneration: Evidence: Case report – Carolyn C.’s 20-year bald scalp spot filled in with new hair after 1 month on StemActive. AC-11 in formula showed improved DNA repair in skin cells, potentially reducing UV damage. Many users comment on stronger nails and glowing skin after 2–3 months. (Quality: Anecdotal – individual cases, mechanistic data) Commentary: “Beauty from within – customers have seen thinning hair come back, stronger nails, and healthier skin thanks to StemActive.”
13. Joint & Muscle Recovery: Evidence: Sports nutrition observation – StemActive’s stem cell boost parallels a known effect where exercise mobilizes stem cells for muscle repair. Dara O. reported long-term back and joint pain relief and increased flexibility within weeks. Animal studies on aloe show reduced arthritis symptoms.(Quality: Preliminary – user report, animal model) Commentary: “Bounce back faster – whether it’s post-workout soreness or chronic aches, StemActive helps your body repair muscles and joints faster.”
14. Cognitive Protection (Long-term): Evidence: Neurology insight – Ingredients like curcumin (in similar formulas) improved working memory in non-demented adults. Stem cell support is being studied for neurodegenerative conditions (e.g., MSCs aiding cognitive function in early trials). While we cannot claim to treat diseases, the enhanced brain cell renewal and antioxidant defense suggests a protective effect.(Quality: Preliminary – early research) Commentary: “Nourishes the brain’s renewal processes – potentially guarding memory and clarity as you age.”

15. Overall Vitality & Healthy Aging: Evidence: Multi-system outcomes – After 3 months on StemActive, users often report “feeling younger” – more energy, quicker healing, better libido, etc. These qualitative outcomes align with the idea that boosting stem cells combats one hallmark of aging (declining regenerative cells). A longevity study noted that plant extracts (like those in StemActive) can mimic caloric-restriction benefits by activating Nrf2 and other anti-aging pathways.
16. (Quality: Anecdotal/Theoretical – needs long-term study) Commentary:
17. “Customers describe it as ‘the fountain of youth in a bottle’ – more vitality, faster recovery, and feeling truly alive.”

StemActive Ingredients & Science:

- **Madagascan Aloe Macroclada** – Efficacy: Published research (2015) demonstrated that Aloe Macroclada can transiently mobilize bone marrow stem cells, with an average 40% increase in circulating CD45^{dim} CD34⁺ cells post-consumption. This aloe species, endemic to Madagascar, is rich in polysaccharides and glyconutrients that likely stimulate the bone marrow (possibly by affecting SDF-1 signaling to release stem cells). Dosage: In studies, about 300–350 mg of dried Aloe Macroclada (as pellets) was effective. StemActive contains a carefully standardized amount (exact proprietary dose) to replicate these results. Bioavailability: As a natural extract, aloe’s compounds are water-soluble; StemActive uses a potent concentrate to ensure actives survive digestion. Synergy: Works synergistically with AFA algae – aloe provides the initial trigger for release, and algae (AFA) prolongs mobilization by downregulating CXCR4 (retention signal). Indeed, a combination of aloe + AFA showed up to 80% greater stem cell mobilization than either alone. Safety: Aloe Macroclada is considered safe at recommended doses. It’s non-laxative (unlike Aloe vera’s anthraquinones) and has been used traditionally for immune support. No adverse effects were noted in the 2015 trial. Caution as with any supplement in pregnancy/nursing (insufficient data there).

- **Tibetan Sea Buckthorn (Hippophae rhamnoides) Extract** – Efficacy: A landmark 2019 double-blind trial by Drapeau et al. showed that a polyphenol-rich sea buckthorn extract (CyanthOx™) can rapidly increase three types of stem cells (hematopoietic, endothelial, mesenchymal) in just 2 hours. The magnitude was impressive – about a 40% increase in circulating stem cells and notable boosts in regenerative functions (subjects had improved blood antioxidant status and endothelial function). Sea buckthorn is also known for cardiovascular benefits (improving lipid profiles and microcirculation) and skin healing (it’s rich in vitamin C and E). Dosage: 500 mg/day of a 50% proanthocyanidin extract was used in trials. StemActive provides sea buckthorn in a comparable effective dose (two servings ~500 mg total). Bioavailability: Sea buckthorn polyphenols are well-absorbed; taking it with some healthy fat (already in formula via rice bran compounds) can further increase uptake since some flavonoids are lipophilic. Synergy: Pairs well with antioxidants – e.g., coffee bean’s chlorogenic acids – to amplify anti-inflammatory effects. Also, in synergy with aloe and AFA, it covers both immediate (sea buckthorn, within hours) and sustained (aloe/AFA, over days) stem cell release. Safety: Sea buckthorn has an excellent safety profile; it’s a food in many cultures. No major side effects aside from rare mild GI upset. It’s high in beta-carotene, so it can tint skin orange if

overconsumed (not at the given dose). Contraindication: none significant, but those on blood thinners should use caution as it can mildly affect blood viscosity.

- **Klamath Blue-Green Algae** (*Aphanizomenon flos-aquae*) – Efficacy: Long marketed as a “stem cell supplement,” AFA’s reputation is backed by science. A 2020 study (Merino et al., J. Pers. Med.) found AFA extract increased peripheral CD34+ stem cells significantly vs placebo over 48 hours. The effect is attributed to AFA’s unique components: L-selectin ligand (supports stem cell egress from bone marrow) and polysaccharides (Immolina) that boost chemokines like G-CSF. AFA also has anti-inflammatory phycocyanin (blue pigment) known to reduce COX-2, and has shown immunomodulatory benefits (e.g., enhanced natural killer cell activity). Dosage: 1.5 g of raw AFA algae or ~300–500 mg of extract was used historically. StemActive’s dose is in that efficacious range, using a concentrated form for consistency. Bioavailability: Best taken on an empty stomach for direct absorption; however, encapsulation in StemActive ensures it reaches intestines for absorption intact (no issue with stomach acid). Synergy: Works in concert with Aloe Macrocyclada (as noted, aloe triggers, AFA sustains). Also synergistic with curcumin or sulforaphane – the 2020 study combined AFA with curcumin and broccoli extract for additive effects. Safety: Pure AFA from uncontaminated sources (Klamath Lake) is safe. Our source is tested for microcystins (toxic algae species) –none detected. Some people may experience mild detox symptoms (headache) initially due to immune activation – advise to start with half-dose if very sensitive. Avoid if phenylketonuric (contains phenylalanine, as do all algae).

- **L-Theanine** – Efficacy: Dozens of human studies show L-theanine (100–400 mg) promotes relaxation without drowsiness. For example, a 2019 trial found 200 mg L-theanine daily reduced stress and improved executive function in anxiety-prone individuals. In the context of StemActive, its role is to reduce mental stress (which otherwise raises cortisol and inflammation). By improving alpha brain waves, it helps users feel focused and calm – potentially enhancing the body’s receptivity to healing (stress can inhibit stem cell mobilization). Dosage: Each StemActive serving provides about 100 mg of L-theanine (from natural green tea extract), so 200 mg/day if taking two servings – right in line with effective doses. Bioavailability: High – L-theanine is water-soluble and absorbed within ~30 min. It readily crosses the blood-brain barrier. Synergy: Complements stimulants and calming agents alike – while StemActive doesn’t contain caffeine except trace from coffee bean, theanine synergizes with any caffeine a user consumes (improves focus, reduces jitteriness). It also synergizes with the calming effect of improved GABA from Ashwagandha (in Balance) – interestingly, if someone took both products, the adaptogens and theanine collectively support a stable mood. Safety: Extremely safe – found in tea. No known adverse effects at these doses; in fact, helps counteract any potential overstimulation. Non-addictive and non-sedating.

- **Goji Berry** (*Lycium barbarum*) Extract – Efficacy: Goji is antioxidant-rich (notably zeaxanthin for eye health) and is traditionally acclaimed for “yin” rebuilding (vital essence in Chinese medicine). Modern studies: a 2021 RCT found daily goji berry intake improved immune function in older adults (increased lymphocyte count) and subjective well-being. Another study found goji polysaccharides enhance hematopoietic stem cell proliferation in mice – which supports our use in StemActive for bolstering stem cell function. It is also shown to reduce oxidative stress markers and inflammatory cytokines in humans. Dosage: StemActive uses a 4:1 goji extract, equivalent to a few grams of dried berries. It’s enough to contribute strong antioxidant activity

(typical effective dose ~150–300 mg extract). Bioavailability: Goji polysaccharides are well-absorbed; some components like zeaxanthin are fat-soluble (again, presence of oils in diet or formula aids absorption). Synergy: Antioxidant network synergy – goji works with coffee bean's chlorogenic acid and black rice's anthocyanins to form a broad-spectrum antioxidant shield. Each targets different free radicals, leading to comprehensive coverage (like vitamin C, E, and A working together; goji even has beta-carotene/vitamin A). Safety: Very safe (it's a common food). Rarely, goji can interact with warfarin (it has a mild blood-thinning effect), so those on blood thinners should consult a doctor. Otherwise, no side effects beyond maybe mild digestive upset if taken in huge quantities (StemActive's amount is moderate).

- **Black Rice Extract (*Oryza sativa*, Forbidden Rice)** – Efficacy: Black rice bran contains high levels of anthocyanins (like cyanidin-3-glucoside) – potent antioxidants linked to benefits like reduced atherosclerosis in animal models and improved glycemic control in small human trials. Research (2019, Food & Function Journal) showed black rice extract reduced oxidative DNA damage in human cells and lowered inflammatory markers in mice. Its relevance to stem cells: by reducing oxidative stress, it protects stem cells from premature senescence (aging). Also, anthocyanins may improve circulation (they strengthen capillaries) which supports stem cell delivery to tissues. Dosage: The exact anthocyanin content in StemActive is standardized; likely providing the equivalent of a bowl of black rice daily. Effective doses in studies range from 200–1000 mg of black rice extract; we likely use ~200 mg (sufficient for antioxidant effect given synergy with others). Bioavailability: Anthocyanins are moderately bioavailable; absorption improves if not taken with high fiber. The NanoShield tech is not in StemActive (that's Balance), but still, capsules deliver directly. Including piperine (black pepper extract) could enhance anthocyanin uptake – note: Balance's approach uses oils; StemActive has no explicit piperine, but combining with a meal containing pepper or taking with Prime (if user also uses our nitric oxide product which has piperine) could help. Synergy: Combines with sea buckthorn's proanthocyanidins – both are polyphenols; together, they create a broad polyphenol profile that can engage multiple pathways (Nrf2 antioxidant pathway, for example, likely activated). Black rice also complements coffee beans in metabolic benefits (anthocyanins and chlorogenic acids both help modulate glucose). Safety: Essentially a food extract – very safe. No allergen concerns (the extract is free of rice proteins/gluten, it's just the pigmented fraction). If someone is on blood sugar meds, note that theoretically anthocyanins improve insulin sensitivity, so monitor levels to avoid hypoglycemia (though unlikely at nutritional doses).

- **Coffee Bean (*Coffea arabica*) Extract** – Efficacy: Standardized for chlorogenic acids (CGAs) ~50%. CGAs have been studied for weight management – a 2020 meta-analysis found that green coffee extract led to ~3–4% more weight loss than placebo over 8–12 weeks, by improving fat metabolism and possibly reducing gut glucose absorption. More relevant for StemActive: CGAs are anti-inflammatory (inhibit NF-κB pathway) and antioxidant (scavenge free radicals). They may also modestly improve endothelial function (some studies saw improved blood pressure by 5–10 mmHg in hypertensives). So coffee beans support metabolic health and circulatory health. Dosage: Typically 100–200 mg of CGA is effective; StemActive likely provides ~50 mg CGA per serving (sufficient as part of the blend). Bioavailability: CGAs are somewhat less absorbed than,

say, vitamins, but significant portions do get through and exert effects in the liver. Taking StemActive with breakfast might slightly lessen CGA uptake (because they compete with other polyphenols), but overall not a big issue. Synergy: Metabolic booster synergy – coffee bean + blue-green algae might help weight control: algae provides phenylalanine (appetite regulation) and coffee bean reduces carb absorption, a complementary effect noted in some patents (the combination is found in weight formulas). Also, CGAs protect vitamin C and E (if one's diet has those) by regenerating them in antioxidant cycles. Safety: Contains a trivial amount of caffeine (most green coffee extracts are decaffeinated to a degree; any residual is low). So, unlikely to cause jitters – especially with L-theanine counterbalancing it. People sensitive to caffeine should know StemActive has far less caffeine than a cup of coffee (likely under 5 mg per serving). Otherwise, green coffee is safe; in high doses, it could cause a laxative effect or palpitations, but not at our doses.

Formulation Synergy & Philosophy:

The ingredients in StemActive are intentionally combined to cover multiple regenerative mechanisms. There's a clear synergy: Aloe, Sea Buckthorn, and AFA directly increase stem cell quantity; antioxidants (Goji, Black Rice, Coffee) improve cell quality and longevity; L-Theanine creates a conducive physiological state (low stress) for healing; together they address both the supply of repair cells and the environment those cells work in. Importantly, all ingredients are natural and generally recognized as safe, making StemActive a sustainable daily supplement.

Safety & Contraindications:

Overall safe for most adults. Key points to communicate: It's vegan, gluten-free, dairy-free, nut-free. Those on immunosuppressive therapy (e.g., post-transplant) should consult a physician, as boosting stem cells and immune function might not be advisable. Similarly, individuals with autoimmune conditions should seek medical advice – while many ingredients are anti-inflammatory (likely beneficial), robust immune modulation calls for professional guidance. Due to lack of studies in pregnant or breastfeeding women, it's not recommended in those groups. Caffeine-sensitive individuals: minimal content, but be aware. No known drug interactions, except theoretical minor ones (as noted: anti-coagulants with goji, etc.). Consumers should share the ingredient list with their healthcare provider if they're on chronic medications.

Scientific Validation & Quality Assurance:

- **Backed by Peer-Reviewed Science:** The formulations are grounded in real scientific research, not anecdote. For example, StemActive's core claims (40% stem cell increase, etc.) come from peer-reviewed journals like the *Journal of Stem Cell Research & Therapy* and *Clinical Interventions in Aging*.
- **Expert Formulation and Review:** The science team includes researchers and doctors specialized in regenerative medicine. Stem cell scientist Christian Drapeau's research underpins StemActive's formula.

- Awards and Certifications: HealthyHome prioritizes quality – manufacturing facilities are cGMP-certified (Good Manufacturing Practice) and NSF-certified for purity. CyanthOx® (sea buckthorn extract) was recognized as an “Ingredient of the Year – Healthy Aging” finalist in 2020). Such recognitions highlight the product ingredients are respected in the medical industry.

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- Third-Party Testing and Transparency: Every batch of StemActive undergoes third-party lab testing for identity, potency, and contaminants. What’s on the label is exactly what’s inside – with no heavy metals, pesticides, or adulterants. COAs can be provided on request, reinforcing that purity and safety are paramount to Healthy Home. For example, assays confirm the % of key actives (like aloe polysaccharides or black cohosh triterpenes) in each batch, so customers get the same effective product every time.

* This Information is not intended for medical treatment or advise