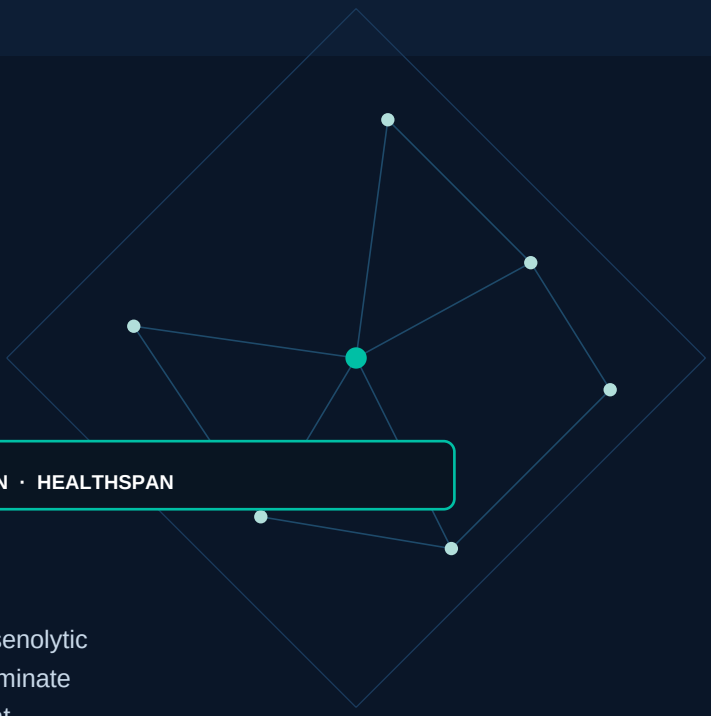
D+Q

Clear Senescent Cells.

Reclaim Biological Youth.



SENOLYSIS · LONGEVITY · INFLAMMATION · HEALTHSPAN

Dasatinib and Quercetin represent the most clinically validated senolytic combination in longevity medicine. Together, they selectively eliminate **senescent cells** — the dysfunctional, pro-inflammatory cells that accumulate with age and drive tissue degeneration. The D+Q protocol has demonstrated measurable reductions in senescent cell burden, inflammatory markers, and physical decline in human clinical trials.

2	Senescent	Clinical	Proven
DRUGS COMBINED	PRIMARY TARGET	HUMAN TRIALS	BIOMARKER RESULTS

What Is D+Q?

A precision senolytic protocol targeting the root cause of biological ageing

The Senescent Cell Problem

As the body ages, certain cells lose the ability to divide normally but refuse to die. These **senescent cells** linger indefinitely, secreting a toxic cocktail of inflammatory cytokines, proteases, and growth factors known as the Senescence-Associated Secretory Phenotype (SASP). SASP degrades surrounding healthy tissue, accelerates ageing in neighbouring cells, suppresses immune function, and drives the chronic inflammation underlying most age-related diseases.

How D+Q Eliminates Senescent Cells

Dasatinib is an FDA-approved tyrosine kinase inhibitor that targets the pro-survival signalling pathways that senescent cells rely on — particularly the **BCL-2/BCL-xL** and **PI3K/AKT** pathways. Quercetin, a natural plant flavonoid, blocks the anti-apoptotic networks that allow senescent cells to evade programmed cell death. Used together, they attack complementary survival pathways simultaneously — achieving far greater senolytic efficacy than either agent alone.

The D+Q Senolytic Mechanism

1

SASP Accumulation

Senescent cells build up with age, secreting inflammatory SASP signals that damage surrounding tissue.

2

Dasatinib Blocks Survival Signals

Dasatinib inhibits the BCL-2 and PI3K/AKT pathways senescent cells depend on to evade death.

3

Quercetin Cuts Anti-Apoptotic Nets

Quercetin targets complementary survival networks — HSP90, PI3K — closing the remaining escape routes.

4

Selective Apoptosis

Senescent cells undergo programmed death while healthy cells — which don't rely on these pathways — remain unaffected.

★ **INTERMITTENT DOSING — NOT DAILY USE**

Unlike conventional medications, D+Q is used in short, periodic **pulse doses** — typically 2–3 consecutive days per month. Senescent cells do not repopulate rapidly, so intermittent clearance is sufficient. This protocol minimises exposure while maximising senolytic efficacy.

The Benefits of D+Q

From joints to cognition — clearing senescence reverses ageing at its source

01 Senescent Cell Clearance

Clinical studies confirm D+Q measurably reduces the burden of p16- and p21-positive senescent cells in human tissue — directly addressing the root driver of biological ageing.

02 Reduced Systemic Inflammation

By eliminating the primary source of SASP, D+Q dramatically lowers circulating inflammatory cytokines including IL-6, MMP-9, and TNF-α — markers linked to virtually every chronic age-related disease.

03 Physical Function & Mobility

Human clinical trials in idiopathic pulmonary fibrosis and diabetic kidney disease showed significant improvements in walking speed, chair-stand performance, and physical endurance following D+Q treatment.

04 Cardiovascular Health

Senescent cells accumulate in vessel walls and contribute to arterial stiffening and atherosclerosis. D+Q clears these cells, supporting healthier vascular function and reducing cardiovascular risk markers.

05 Metabolic & Adipose Tissue

Senescent fat cells are a major driver of metabolic dysfunction and insulin resistance. Quercetin's affinity for adipose tissue senescence, combined with dasatinib's systemic reach, makes D+Q uniquely effective here.

06 Bone Density & Joint Health

Senescent osteoblasts and chondrocytes impair bone formation and cartilage integrity. D+Q has been shown to reduce bone loss markers and may support joint health in osteoarthritis and age-related bone decline.

07 Kidney & Lung Function

The first human senolytic trials targeted fibrotic lung disease and diabetic kidney disease — both driven by senescent cell accumulation. D+Q demonstrated measurable functional improvement in both conditions.

08 Cognitive & Neurological Health

Senescent microglia and astrocytes contribute to neuroinflammation and cognitive decline. Preclinical data strongly support senolytics in reducing Alzheimer's-associated pathology and preserving brain function.

The D+Q protocol offers the most clinically validated senolytic strategy available — with peer-reviewed human trial data demonstrating measurable reductions in senescent cell burden, inflammatory biomarkers, and physical decline. It is the cornerstone of evidence-based longevity medicine.