






**Table 1 - Difference between different types of garlic & NCI's aged black garlic.**

Parameters	Fresh Garlic	Sliced/ Minced/Crushed Garlic	Garlic Oil/Capsule (Steam-distilled)	Powdered Garlic	NCI's Aged Black Garlic
Images					
Type of Anti-oxidant	Alliin, stable as a whole garlic	Allicin, not stable. Need to consume within 10mins.	Allicin derived	Alliin	S-Allyl Cysteine (SAC), potent antioxidant converted from Allicin
Absorption	Can be absorbed and without being converted to allicin	Unknown as studies unable to detect allicin in serum or urine after ingestion 25g of raw garlic. Thus suggesting allicin & allicin compounds are rapidly excreted even if absorb.	It needs to be enteric coated to ensure absorption in the small intestine. Most brands were to produce little compounds due to the prolong digestion/ingestion duration.	It needs to be enteric coated to ensure absorption in the small intestine. Most brands were to produce little compounds due to the prolong digestion/ingestion duration.	Very stable and high bioavailability studies shown SAC is detected in plasma, liver & kidney after consumption.
Amount of antioxidant present	Uncertain & not consistent in every clove & species.	Uncertain & not consistent in every clove & species.	@ 1% of oil-soluble compounds in 99% vegetable oil	@ 0.3% alliin but varies in brands	Standardized to > 0.1% of SAC
Dosage	Dosage: 5-28 cloves/day by swallowing the whole clove	Dosage: 5-28 cloves/day	500 - 1,500mg/day	600 - 900mg/day	Dosage: 1 capsule/day (250mg)
Taste/delivery method	Too big swallow	Unpleasant odour & spicy taste.	Unpleasant odour after taste, garlicky burp & breath	Unpleasant odour after taste, garlicky burp & breath	Small capsule, easy to swallow. No unpleasant odour and taste
Water-soluble	Not water soluble	Not 100% water soluble	Not water-soluble at all.	Not 100% water soluble	100% water-soluble, readily absorbs into the body
GMO status	GMO?	GMO?	Depends on brands	Depends on brands	Non-GMO
Side effects	bad breath, a burning sensation in the mouth or stomach, heartburn, gas, nausea, vomiting, body odor, and diarrhea.  Bleeding disorder.  Interacts with some medications such as Warfarin, anticoagulant, antiplatelets & Nonsteroidal Anti-inflammatory drugs.	bad breath, a burning sensation in the mouth or stomach, heartburn, gas, nausea, vomiting, body odor, and diarrhea.  Bleeding disorder.	bad breath, a burning sensation in the mouth or stomach, heartburn, gas, nausea, vomiting, body odor, and diarrhea.  Interacts with some medications such as Warfarin, anticoagulant, antiplatelets & Nonsteroidal Anti-inflammatory drugs.	bad breath, a burning sensation in the mouth or stomach, heartburn, gas, nausea, vomiting, body odor, and diarrhea.  Interacts with some medications such as Warfarin, anticoagulant, antiplatelets & Nonsteroidal Anti-inflammatory drugs.	GRAS status (Generally recognized as Safe).  Safe profile compared as it does not contain any fat-soluble compound.