Means of improving circulation:
1. Drinking water – thins the blood
2. Alternating hot & cold water on body parts
3. Vinpocetine (extract of periwinkle) increases brain micro circulation
4. Nattokinase – an enzyme that dissolves blood clots – works very well
5. Ginkgo Biloba – (24% extract) improves circulation to the brain
6. Hawthorn berries – improves circulation to the heart
7. Butcher’s broom – improves circulation to the legs
8. Niacin (inositol hexaniacinate doesn’t cause the flush) – dilates blood vessels thus helps overall circulation
9. Cayenne & ginger – dilates overall blood vessels
10. Vitamin E & Omega 3 – seems to thin the blood but by making it less sticky and reduces inflammation
11. EDTA Chelation – removes heavy metals from arterial walls
Means of improving circulation:

Vinpocetine - facilitates cerebral metabolism by improving cerebral microcirculation (blood flow), stepping up brain cell ATP production (ATP is the cellular energy molecule), and increasing utilization of glucose and oxygen in the brain.

Very good at supporting circulation within the brain and thus helps memory.
Chelation is a chemical process in which a metal or mineral—such as lead, mercury, or calcium—is bonded to another substance such as the acid EDTA.

EDTA is essentially a man-made synthetic amino acid, which hides the lead, mercury, cadmium, or other metal inside of it—so that it can then be eliminated from the body more easily.
A study at the Tulane University School of Public Health showed that the average blood level of lead found among Americans is high enough to increase the likelihood of heart attack and stroke.
EDTA has been shown to:
- help prevent arteriosclerosis
- improve blood circulation
- reduce harmful clotting mechanisms
- improve better skin texture and skin tone
- improvements with arthritis
- better vision and hearing
- to reduce blood pressure and cholesterol levels
- reduce calcium accumulation in the blood vessels
- been used as a treatment for osteoporosis
- improve cognitive function and memory by improving brain circulation
How does EDTA Chelation improve circulation?
When lead levels go up, our body is unable to convert arginine into nitric oxide, because the production of the enzyme nitric oxide synthases needed for the production of nitric oxide is disrupted.

Nitric oxide is an extremely important molecule that was previously called “endothelial relaxing factor.” Endothelium is the coating that lines the inside of every blood vessel - if you can make good levels of nitric oxide - then you’re going to have your blood vessels relaxed instead of constricted, which means better circulation.
EDTA chelation is absolutely wonderful for cardiovascular health because it removes lead from the arteries, thus increasing nitric oxide.

...and the net result is that the person then has less angina, more ability to walk for miles without getting leg cramps, better vision, and better memory.
Oral EDTA is coming to be recognized, not just as an alternative to IV chelation, but also as a measure that may be indispensable for optimal survival in a world in which heavy metal pollution is a fact of life.
Debra Schaumberg at Harvard University published important research in the *Journal of the American Medical Association* showing that the higher the percentage of lead that there is in the bones, the sooner people go blind from cataracts.
When you put EDTA in your veins it is one hundred percent absorbed, but the benefits of one 4-hour IV infusion can be accomplished from taking EDTA orally over a period of a month through pills.

With oral chelation in capsule form, only 5 to 18 percent of the EDTA is absorbed. In liquid form this would be even better.
EDTA can remove important metals and minerals from the body, such as zinc, and it is prudent to take a multi-mineral while on an EDTA program?

EDTA is not smart enough to take out just mercury and lead. EDTA may cause as much as a hundredfold increase in the excretion of zinc.
IV EDTA chelation will pull heavy metals from the blood stream and arterial walls but not from the tissue.

Oral EDTA chelation will pull heavy metals from the arterial wall and blood stream from the amount of EDTA absorbed into the blood stream, but it will also pull heavy metals from the stomach and colon because it was ingested.

The primary elimination channels are urine via the kidneys and feces via liver dumping to the colon.
It was initially thought that EDTA chelated calcium out of the atherosclerotic plaques in blood vessels like a roto-rooter treatment for blood vessels.

This belief persisted for close to 50 years but it has now been shown not to be the case. The chelation process does not **dissolve** atherosclerotic plaques, it first removes levels of heavy metals.
EDTA is a weak chelator for things like calcium and magnesium, and it is a powerful chelator for the heavier metals such as lead, zinc, and cadmium.
Binding preference of EDTA

1. Chromium
2. Iron
3. Mercury
4. Copper
5. Lead
6. Zinc
7. Cadmium
8. Cobalt
9. Aluminum
10. Iron
11. Manganese
12. Calcium
13. Potassium
14. Magnesium
15. Sodium

EDTA prefers lead over calcium.

diSodium EDTA is EDTA that is already bound to sodium to begin with, thus it is not attracted to sodium upon use.

diCalcium EDTA is EDTA that is already bound to Calcium, thus it is not attracted to calcium upon use.
Disodium EDTA will be attracted first to magnesium before calcium, and when it bumps into calcium, it lets go of the magnesium and binds to the calcium. If it is bound to calcium, and bumps into magnesium, it will NOT bind to the magnesium. If it bumps into lead it will let go of the calcium and bind to the lead.

In the human body this sequence continues as long as the EDTA is in the body.

So, EDTA can be a more efficient chelator when taken orally than when taken intravenously because it also is binding to what is in the colon as well as attracting heavy metals in the blood stream.
There is virtually no chance for EDTA to actually remove calcium or magnesium because there is so much lead, iron and other heavy metals in everybody.

But if we use sodium EDTA it has a chance to bind to the calcium in the arterial wall thus putting it back into solution before letting it go to attach to a heavier metal.

Thus sodium EDTA would be a better choice over calcium EDTA and would also make the “new calcium in solution” available for building bone. EDTA chelation has been shown to reverse osteoporosis by about 3%.
It appears that EDTA doesn’t remove mercury well. Perhaps the mercury is being removed but it is being eliminated more to the colon than through the kidneys without checking levels in the stool.

Oral DMSA does remove mercury well and does pull it from the tissues.
SAFE?

• In the over ten million people treated with intravenous chelation there haven’t been any deaths….and there was an improvement in blood flow in about 90% of the patients treated.

No one should undergo IV EDTA chelation with weak kidneys. The kidneys can be overloaded and weakened with the removal of lead and cadmium.

Oral chelation would be easier on the kidneys, but still can overload the weak kidneys.
Kidney Support

1. Plenty of water
2. No cokes, avoid caffeine, sugar, high protein diet, prescription diuretics
3. Herbs such as
   1. Dandelion root, Corn Silk, Uva Ursi, Buchu leaf, Parsley root, Cleavers, Juniper Berry, Celery seed (to strengthen weak kidneys)
   2. Gravel Root/Collinsonia root, Hydrangea root (to dissolve kidney stones)
Heavy Metal Removal Chart

Mercury – DMSA, glutathione, kidney support

Lead – DMSA, EDTA, Humic and Fulvic acids, kidney support

Calcium (arterial plaque) – EDTA, kidney support

Aluminum – Malic acid, Alumina, Vit C, EDTA, kidney support (Glycine will mobilize Al and EDTA will chelate to it)

Cadmium – Zinc, Vit C, glutathione, Kidney support

Arsenic – DMSA, kidney support

Chlorella will bind to the mercury once it is in the colon, but does not liberate it from the tissues. Cilantro supports removal of mercury from tissues and colon.
IV Chelation can cost approximately $100 per session. A normal program is 3 sessions per week for about 10 weeks, which comes to $3000 not including the initial office visits, lab tests and extra supplementation needed. Therefore a moderate treatment program of IV Chelation can be about $4000.

IV Chelation uses about 3 grams of disodium EDTA per session.
Oral Chelation via pills has about a 10% absorption rate. If one pill has 625 mg of EDTA, it would take 1440 pills to match the same effectiveness as IV treatment.

At $15 per bottle, with 60 pills per bottle and taking 2 pills per day, it would take 24 bottles over 360 days at a cost of $360 to match the effectiveness of 30 IV treatments.

Taking too much EDTA in capsule form at one time may upset the stomach a little or cause diarrhea.
Liquid oral Chelation combined with phospholipids (Allergy Research Group) has a 90% absorption rate, particularly if sipped slowly.

Essential phospholipids allow direct absorption through the mucus membranes directly into the bloodstream.

At 2000 mg per bottle it would take 50 bottles to match the effectiveness of 30 IV treatments. At 3 bottles per week at $27/bottle, it would take 16.7 weeks and $1350 to match the effectiveness of 30 IV treatments.
<table>
<thead>
<tr>
<th></th>
<th><strong>IV Chelation</strong> (from a physician)</th>
<th><strong>Pills</strong></th>
<th><strong>Liquid</strong> (Allergy Research)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount of EDTA per treatment/dose</td>
<td>3000 mg</td>
<td>2 pills = 1250 mg</td>
<td>1 bottle = 2000 mg</td>
</tr>
<tr>
<td>% absorption</td>
<td>100%</td>
<td>10%</td>
<td>90%</td>
</tr>
<tr>
<td>Amount absorbed per treatment</td>
<td>3000 mg</td>
<td>125 mg</td>
<td>1800 mg</td>
</tr>
<tr>
<td># of treatments or dose required (3000 mg x 30 sessions = 90,000 mg)</td>
<td>30 treatments over 10 weeks</td>
<td>360 doses or 24 bottles with 60 pills/bottle</td>
<td>50 doses or 50 bottles</td>
</tr>
<tr>
<td>Time and duration</td>
<td>10 wks at 3 sessions/week - 3/hour sessions = 90 hours</td>
<td>360 days or one year - taking 2 pills twice a day</td>
<td>16.7 weeks at 3 bottles per week</td>
</tr>
<tr>
<td>Cost per treatment/dose</td>
<td>$100 per treatment (30 treatments)</td>
<td>$15 per bottle (24 bottles)</td>
<td>$27 per bottle (50 bottles)</td>
</tr>
<tr>
<td>Cost/gram of EDTA</td>
<td>$33.33</td>
<td>$0.40</td>
<td>$13.50</td>
</tr>
<tr>
<td>Total cost for equivalent effectiveness</td>
<td><strong>$3000</strong></td>
<td><strong>$360</strong></td>
<td><strong>$1350</strong></td>
</tr>
</tbody>
</table>
EDTA is usually delivered intravenously because oral administration is inefficient, delivering only about 5% EDTA into the blood stream. Although time-consuming and expensive, intravenous chelation with EDTA has a low occurrence of side effects, whereas oral doses larger than 500 mg often result in diarrhea. (Not completely true in my opinion—it takes much more than 500 mg) However, when EDTA is encapsulated in EPL microspheres, as in this product, even large doses (2 grams or more) do not produce diarrhea, and over 90% of the EDTA enters the blood stream.
LipoPhos EDTA
Serving Size: 1 fl. oz. (30 ml)
Servings Per Container: 2

Amount per serving:
Magnesium (as Mag. Chloride) 40 g
Disodium EDTA 1 g
Alpha-Lipoic Acid 50 mg
Essential Phospholipids 6 gm
I fully recommend oral Chelation. There is no waiting in the doctor’s office having an invasive treatment and the same benefit can be accomplished. It is prudent to support the kidneys during EDTA supplementation since much of the heavy metals pulled out passes through the kidneys. Also a quality multi-vitamin/mineral supplement should be taken during the chelating process.
Chelation Check List

1. Support eliminating organs: kidney and liver
2. Check amalgams before pulling Hg out or you might pull Hg from amalgams into the body
3. Vitamin C complex to assist in detoxing and for glutathione production
4. Zinc, Magnesium, etc. (Multi-vit./mineral)
5. Homeopathics work well to pull lead, mercury and toxic metals out of tissue