Metabolism.

This document is an excerpt from the Joe and Charlie Book Study.

Now back in the 1930's this was the Doctor's Opinion. In the 1930's they knew very little about metabolism.

1) Today they know that if you put anything in your system such as a piece of bread or a piece of beefsteak, that the mind and body recognizes what that is.

2) Certain organs in the body begin to produce some things called enzymes.

3) They attack that food and begin to break it down and separate it into useable and non-useable items.

4) What the body can use such as the proteins, the amino acids, the vitamins the body will retain,

5) What it can't use it will dissipate through the urinary and intestinal tract, they call that metabolism. Today they have proven that The Doctor's Opinion is no longer just an opinion, it's actual truth. And we're going to look at a little picture here for just a minute, and I want to stress that this is not A.A. information. A.A. won't get involved into why we're allergic, because that might bring controversy. But this information presented to us a few years ago by members of the medical profession, is so interesting and has such depth and meaning for people like us, I think we would be remiss if we didn't look at it. So let's look at it for just a moment.

In the center of that picture there's nine people there that drink safely. They are at ease with alcohol. They take a drink or two, the mind and body senses it, the enzyme production starts, and the enzymes attack the alcohol,

(1st Stage) breaks it down into acetaldehyde,
(2nd Stage) then to diacetic acid,
(3rd Stage) then to acetone.
(final Stage) In the final stages it becomes a simple carbohydrate made up of water, sugar, and carbon dioxide.

- The water would be dissipated through the urinary and intestinal tract. The sugar is calories, energy, empty calories, none of the amino acids, none of the vitamins, but a form of energy. The body will burn them; store the excess as fat to be used at a later date. The carbon dioxide will be dissipated through the lungs.

In the normal social drinker this takes place at the rate of approximately one ounce per hour. Now I know it'll vary with different people, but the average is one ounce per hour. And if they don't drink more than an ounce per hour forever they can't get drunk. Their body metabolizes it and burns it up and gets rid of it at that rate. Very seldom do you see a social drinker drinking more than an ounce per hour. If you're with one of them and they're drinking more than an ounce an hour, you better get out of the way. Cause they're going to puke on you after a while. They'll either go to sleep or they'll puke on you, one of the two, every time.

The left-hand side is the one who does not drink safely, or he's at disease with alcohol. And if you want to use the word disease that's all it means, something that separates you from the norm.

When alcoholics put it in our body, the same thing happens. The enzymes attack the alcohol,

(1st Stage) break it down to acetaldehyde,
(2nd Stage) then to diacetic acid,
(3rd Stage) then to acetone.
(final stage) - - - - - - - - - -(is where the difference lies)

It seems as though, in our bodies, the enzymes necessary to complete the metabolism, breaking it down from acetone to the simple carbohydrate, are not there in the same qualities and/or quantities as they are in the body of the nonalcoholic. Therefore it stays in our body for a longer period of time as acetone. <u>It is proven today, that acetone ingested into the human system that remains there for an appreciable period of time, will produce an actual physical craving for more of the same.</u>

In a non-alcoholic's body it (acetone) goes through that stage (conversion to simple carbohydrate) so rapidly the craving never occurs. In our body it stays there long enough, the craving develops and that demands a second drink.

Now just think…. 1) you got most of the acetone 2) now you put that from the first (drink), in from the second (drink). <u>The acetone level goes up, and if the acetone's what causes the craving, then the craving becomes harder with a second drink</u>. Now you put in the third, 1) you got most of the first, 2) nearly all of the second 3)and now you put in the acetone from the third, and <u>the craving goes up, and that demands a fourth</u>.

At midnight we're laying out in the parking lot, they've run over us and broken our leg, and they come running up to us and say can we help you, and we say, my God yes, give me another drink. You see we're craving it harder at midnight after thirty drinks than we were at 6:00 in the evening after 2 drinks. That explains to me why I never got enough. Hell I drank twenty-six years; I never did get all the alcohol I wanted. I got a hell of a lot more than I needed, more than I could stand, but I never got all I wanted.

Because the more you drink, the higher the craving; the higher the craving the more you want, the more you want ... it's just endless.

Now if this never got any worse, we could probably learn to live with this situation, but we know not only do we have an illness, <u>we have a progressive illness that always gets worse and never better</u>**.**

Today we know that as we drink, the more we drink, the longer we drink, the more tissue we destroy. <u>Alcohol is a destroyer of human tissue</u>**,** and the more tissue we destroy it seems as though that it acts upon two organs of the body first, which are the liver and the pancreas. Now today we know that <u>the organs of the body that produce the enzymes necessary to metabolize alcohol are the liver and the pancreas</u>**.**

And as we drink and as we damage them 1) the enzyme production becomes less and less, 2) the craving becomes harder and harder 3) with the resultant drinking becoming worse and worse.

We know also that <u>the body begins to shut down on the production of everything as we get older</u>, now I wish that we're not true, but believe me it is, I'm experiencing lots of that. If I should take a drink today after <u>twenty some odd years of sobriety</u>, I wouldn't start where I left off twenty some odd years ago, 1) The craving would be harder, 2) the drinking would be harder, and 3) the resultant trouble would be harder <u>due to the aging factor.</u> So not only do we have a physical illness, we have a <u>progressive physical illness</u> due to two factors: (a) damage to the body, and also (b) due to the aging factor.

Alcoholism is a progressive disease. This is true in many areas of our lives whether we are drinking, or sober twenty some odd years. In relation to the physical aspect, for each year that we grow a little older in sobriety, our bodies grow older too. And as the body age's, the production of enzymes needed to break down alcohol, slows down as well. If an alcoholic picks up a drink after twenty years of sobriety, the acetone that will now remain longer in his system will trigger stronger cravings than he has ever felt before. The drinking will be much worse and it will be much harder to stop if he so desires. We can't pick up where we left off; it would be as if we never stopped.

1) alcoholics don't have the quality/quantity of enzymes required to completely metabolize alcohol to begin with
2) because the enzymes can't metabolize the alcohol we are left with acetone sitting around in our systems
3) when acetone remains there for an appreciable period of time, it produces an actual physical craving for more alcohol
4) the alcohol we crave is a destroyer of human tissue - the more we drink, the more we destroy human tissue
5). the first organs to be destroyed are the liver and the pancreas which are the two organs that produce the enzymes necessary to metabolize alcohol