# Multivitamins: What Are They, How To Choose Them and What Are The Best Ones?

Multivitamins



According to https://www.healthambition.com/multivitamin/

Hello and welcome to our blog we are grateful for your visit and the likes without we wouldn’t be here. On week 268 we are presenting information on multivitamins, what are they, how to choose them and what are the best ones.

Keeping up with all of the ongoing research of multivitamins could be a full-time job, to say the least.  Almost every day new studies are published about who needs certain vitamins and what they can do for our health. Sometimes it’s hard to keep up with the amount of information.

Even a trip to your local health food store can blow your mind! There are hundreds of individual vitamin supplements as well as combinations of two or three and multivitamins. Should you take one? Should you combine a few? Or is a multivitamin be the best option?

That’s why I’ve decided to put everything On this page, you’ll find lots of information about multivitamin benefits as well as some of the best multivitamin for women, children and so on.

## About Multivitamins

There are an enormous amount of dietary supplements available, however, multivitamins are the most common of all they are an easy one or two pills instead of many is much more doable for the fast pace person. There is a lot of controversy surrounding multivitamins and whether they’re necessary.

It’s important to remember that vitamins and minerals are crucial to maintaining our wellbeing. Many issues like fatigue and low immunity can be addressed simply by including the right amount of vitamins and minerals in your diet.

One multivitamin capsule can contain your entire daily recommended value of micronutrients. The big question is, are they needed if you are getting all of those nutrients from your diet? Also, is the amount offered in your multivitamin sufficient?

There are four main vitamins and minerals that people tend to be missing in including:

**Vitamin D**
**Zinc**
**Magnesium**
**Potassium**

Although these vitamins and minerals are offered as individual supplements, most do not contain a combination of them all. This is where a multivitamin can be useful.

# MULTIVITAMINS

## and your path to wellness

**WHY A MULTI?** Chances are, even if you have an excellent diet you're not getting enough key nutrients.

### ROADBLOCKS

- DECLINING soil quality
- INCREASED CONSUMPTION of packaged foods
- MORE physical and environmental stressors
- 50% OF AMERICANS are estimated to have nutrient deficiencies
- 40+% OF ADULTS don't get enough vitamins A, C, D and E, calcium and magnesium
- 1 IN 3 WOMEN in the U.S. is estimated to be at risk for deficiency in iron, folate and vitamins A, B6, B12, C, D and E
- 1 IN 4 AMERICAN ADULTS eat less than 1 serving of fruit and veggies per day

Sources: Centers for Disease Control, Environmental Working Group, *Delicious Living*

EAT A HEALTHY DIET

**DESTINATION:** wellness
Look for multis that contain these nutrients to help get you there*

TAKE A MULTI

### ROADMAP:

### 4 TIPS FOR CHOOSING A MULTIVITAMIN

1. Purchase from a trusted natural products retailer.
2. Choose natural nutrients, which are generally more easily absorbed.
3. Look for active forms of Bs to improve absorption.
4. Choose from reputable brands that prioritize transparency and quality so you know just what you're getting!

**LOOK GREAT ALONG THE WAY**
Biotin, beta-carotene, vitamin A, vitamin C, vitamin E→ Support skin and hair health*

**SEE THE PATH CLEARLY**
Vitamin A, vitamin C, vitamin E→ support eye health*

**BE STRONG**
Vitamin D, calcium and magnesium (together!), vitamins K1 and K2→ support bone health*

**KEEP YOUR STAMINA**
Iodine and B vitamins → maintain a healthy thyroid, balanced metabolism and high energy*

**BE HEALTHY ON THE JOURNEY**
Vitamin C, vitamin D, vitamin E, beta carotene→ immune support*

**STAY SHARP**
Zinc, B vitamins→ support a healthy mind*

**WALK ON THE SUNNY SIDE OF THE (WELLNESS) STREET**
Vitamins B6 & B12 → balance hormones and mood*

**FOLLOW YOUR HEART**
B vitamins→ support a healthy ticker*

## wellness!

*This statement has not been evaluated by the FDA. This product is not intended to diagnose, treat, cure, or prevent any disease.

deliciousliving

MegaFood
Fresh From Farm To Tablet™

## Are Multivitamins Good For You?

The fact of the matter is most of us don’t get a fully balanced, nutritious diet daily for the most part. Even those that do, find it difficult to get the 40 plus micronutrients we need every day. Therefore, most people can benefit from an over-the-counter multivitamin in some way.

Most Americans do not meet their daily nutritional needs. This can be down to calorie restriction, poor food choices or due to diet restricting and large amounts of stress. For example, if you get a good amount of calcium, you still need to ensure you get enough vitamin D and K for calcium absorption.

It’s good to remember though that healthy eating will always be the best way to meet all of your nutritional needs. Taking supplements is not a substitute for a healthy diet. For people who lack variety in their diets as well as those who must stay away from entire food groups, multivitamins can be an excellent solution to meeting your daily nutritional needs.

## Are Multivitamins Safe?

For the most part yes, multivitamins are safe her I must say that consulting your health practitioner is always the best thing to do before you take a new suplement and have a concern. You’ll find that most supplements contain the basic amount of vitamins you need to prevent deficiencies, but not enough to overdose.

# How To Choose a Multivitamin

It’s important to consider a couple of general points when purchasing multivitamin supplements. Firstly, the percentage of recommended daily value for the ingredients. Obviously, if you already have quite a nutritious diet but feel it still isn’t quite enough, using a supplement with lower dose may be better.

Could you benefit from individual vitamin supplements more than an overall multivitamin? Her do a consultation with someone that is an authority on the subject and can assess your personal need.

Another thing to think about in regards to safety is choosing a product from an established brand. Choosing a cheaper brand which does not state the exact dose for each ingredient could be of spending a little money but not getting many benefits. You need to be able to feel confident you know exactly what you are putting inside your body is right for you.

With so many different options on the market, choosing a multivitamin can be mind boggling. Nevertheless, I have looked at different multivitamins for different people, breaking it down into categories that may suit you better as an individual.

# What Do You Want From A Multivitamin?

## Multivitamins for Energy



Everyday life can cause us to lose our get up and go and feel burned out. Many of today’s strains leave us exhausted and relying on coffee to make it through the day. But over stimulating yourself with caffeine can do more harm than good. A better way to get energized could be by ensuring a good balance of vitamins and minerals. That’s why I have chosen some my favorite multivitamins to give back that spring in your step.

# Essentials of the Best Multivitamin for Energy

Multivitamins come in many different formulations, and there is no set standard. They usually vary by purpose, gender and age because each category has slightly different health concerns and needs. A multivitamin formulated for energy will possess more of the nutrients designed to reduce fatigue and improve energy levels and metabolism.

## B Complex Vitamins

When talking about energy, the B vitamin complex is one the most important. These vitamins promote metabolism and provide energy by stimulating the production of energy in the body.

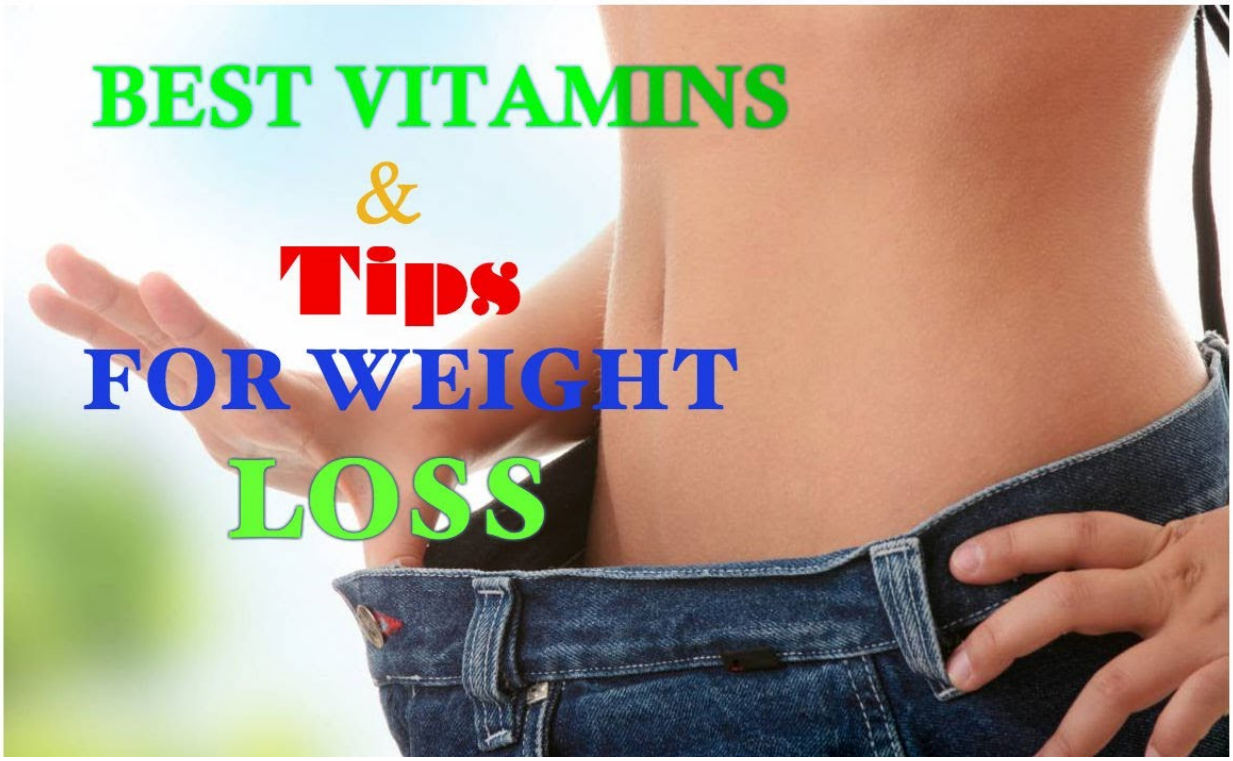
This family of vitamins can also be the hardest to keep track of because they have many different names. Although all B vitamins have an associated number, this is not always listed. Remember the following are all B vitamins:

**Thiamin (B1)**
**Riboflavin (B2)**
**Niacin (B3)**
**Pantothenic Acid (B4)**
**Biotin (B7)**
**Folic Acid (B9)**

## Iron

Iron is vital for the creation of red blood cells. If your tiredness is due to a low iron diet or anaemia, you will need a supplement to compensate. Often, if your deficiency is severe, you will need to take a separate tablet with a high dose of iron as multivitamins won’t have enough.

# Multivitamins for Weight Loss




Anyone starting a weight loss journey knows how difficult it can be. One vitally important point for any weight loss journey is ensuring you get the correct amount of vitamins and minerals. If you’re lacking in essential nutrients you are likely to find losing weight even more challenging. This is why I have looked at some of the best multivitamins available for weight loss to share with you.

# What to Look for in a Multivitamin for Weight Loss

### Vitamin B12

Vitamin B12 is found in most animal-derived foods (shellfish, eggs, meat, poultry and dairy). However some people have difficulty absorbing it. If you are over the age of 50, have had intestinal surgery, or are a vegetarian/vegan, you can benefit from B12 supplements.

Vitamin B12 an important nutrient because it aids in metabolizing protein. It also helps to maintain red blood cells and the central nervous system. In addition, vitamin B12 helps with weight loss. It converts proteins and fats into energy and will help reduce the tiredness that results from a low calorie diet

### Green Tea Extract

Green tea extract is a supplement that is helpful when you want to lose weight. It claims to increase metabolism and reduce appetite. It is also used as an alternative medical treatment because it has antioxidant and anti-inflammatory properties that can be used for arthritis and other ailments.

The extract, made of green tea leaves, decreases the amount of fat that is absorbed in the body. You should take it in the morning, during the day, or before exercising because green tea it has attributes that increase energy. There are possible side effects if you have a long term illness or are taking prescription medicines. Ask your doctor if this applies to you.

### Fish Oil

Taking fish oil every day cannot only help you lose weight,

but it also supports cognitive function, heart health, and bone strength. Fish oil can also decrease your appetite overtime by curbing your cravings. Eventually, you may find yourself eating less and be able to maintain a healthy weight.

Another reason to add fish oil to your daily routine is because it helps to reduce fat buildup. Extra fat is naturally stored in the body until it is needed. This would be great if you were a bear, but if you're reading this I'm guessing you're not. Fish oil reduces these fat storages by increasing insulin output. It makes your body more reluctant to store fat

### Fiber

Fibre decreases constipation, maintains your blood sugar, lower your cholesterol, and help you lose weight. It is found naturally in a variety of plants, vegetables, fruits, and grains. It can also also be added to your daily diet in pill, powder, or gummy form. Fiber supplements are made with natural plant extracts, seeds, and berries.

Fiber makes you feel full without adding extra calories. You should gradually increase your intake to avoid bloating, cramping and gas. Drinking large amounts of water throughout the day will help. Fiber can possibly slow the effects of over-the-counter and prescription medications. Talk with your doctor to see if adding extra fiber to your diet will interfere with your medications

## Multivitamins for Hair Growth




Who doesn’t want long, strong and shiny hair? Of course, most people would love to have hair resembling that of a supermodel. Well, multivitamins could be the solution. Check out some the best multivitamins for hair growth.

A true multivitamin for hair growth will have increased vitamins that hair needs, such as thiamine, iron, zinc, calcium, vitamin B and low in ingredients like vitamin A.

## Should I use a multivitamin for hair growth?

There is often no exact answer as to why actual hair loss happens. The solution can be difficult to identify. Adding a quality multivitamin to a good diet is one way to guarantee that you are doing everything possible to promote hair growth and health. You should at least consider using a multivitamin if you:

Begin a nutritionally restrictive diet
Regularly use hair straighteners or hair dryers
Dye your hair
Are under extreme stress
Suffer from bouts of exhaustion
Begin a nutritionally restrictive dietRegularly use hair straighteners or hair dryersDye your hairAre under extreme stressSuffer from bouts of exhaustion

The right amounts of protein and vitamin B all help supply the body with the energy needed to motivate, concentrate and stay healthy. It is best to view the use of a multivitamin as an added boost rather than the cure.

## Multivitamins for Beautiful Skin




Although often associated with teens, acne can be an issue for people of all ages. Instead of spending big amounts of money on expensive lotions and creams that can sometimes leave you in a worse position and not take in consideration that skin health starts from the inside out, trying a multivitamin could

be the answer for a lot of cases.

Two vitamins that are commonly used include vitamin A and zinc. However, others include vitamin E, vitamin B6, copper, omega-3 fatty acids, selenium and more. Why not try out multivitamins before taking any prescription medications for acne, as these medications can have serious side effects.

Many vitamins work together to treat your skin condition, so it’s very important that you stick to supplements rather than just individual vitamins.

## Multivitamins for Bodybuilding



If you have committed yourself to a strict weight training

program, you want to be sure you are doing everything you can to get the best results possible. One way to do this is by ensuring you are getting all the best nutrition. Using a multivitamin supplement could help you reap the rewards.

The “supervitamin” includes all of the essential nutrients, plus MSM, CoQ10, Asian ginseng, ashwagandha, or others. Supervitamins might use proprietary blends for amino acids, performance and digestion functions.

Body builders who want large muscle mass can add MSM, glucosamine and Vitamin B12 in a supervitamin supplement. Marathon runners can use supervitamins with their “carb-loading” sessions.

## Multivitamins for Vegetarians



Source: goindiya.blogspot.com

If you have a restrictive diet it’s possible you are not meeting all of your nutritional needs from your daily meals. Therefore, being sure to get everything you need to keep your body going can be difficult. One solution might be with the aid of a multivitamin supplement. However, it’s important to

be sure that the option you choose is compatible with a vegetarian diet. That’s why I have looked at the best multivitamins for vegetarians in order to give you some great options to choose from.

## Which Vitamins to Look For?

### Iron

When most of us think of iron-rich food, red meat is probably the first thing that comes to mind. However, if you abstain from meat there are plenty of other iron sources for you to consider such as lentils, spinach, tofu and pumpkin seeds. The type of iron found in non-animal sources (non-haem iron) is not as easily absorbed as that from meat (haem iron) so you can still end up deficient with the best efforts. Iron supplements are especially important for women of menstruating age who lose blood every month.

### Vitamin C

It’s easy for vegetarians to get vitamin C from fruit and vegetables (orange, pineapple, strawberry, etc) so there’s no need to worry about this. However, vitamin C helps your body absorb iron so a good multivitamin will contain both.

### Calcium

Again, most of us associate calcium with animal products – i.e. dairy. It can be particularly difficult for vegans to get the correct amount of calcium although it is also found in almonds, brazil nuts and leafy greens like collard greens and kale

### Iodine

Iodine is used by the thyroid and is essential for its proper function. Table salt may provide your daily allowance but not all brands are iodized.

### Vitamin D

Vitamin D is important for bone health, along with calcium. Sunlight is a great source but the highest concentrations are found in fish and eggs. Luckily, many vegetarian-safe products are also fortified with vitamin D such as juices and non-dairy milks.

### Zinc

Zinc is involved in immune function, among other things. Again, it is found in highest quantities in meat and seafood but you can also get it from legumes, nuts and spinach.

### Omega-3 Fatty Acids

Omega-3 fatty acids are mostly found in fish. They are important for heart and cognative health. Look for non-fish derived omega-3 when choosing a vegetarian multivitamin.

## Multivitamins for Seniors



As we age it becomes more and more important to get all of the nutrition we need. Getting the correct amount of vitamins and minerals can aid a magnitude of age related illnesses and help you feel fit and healthy. I have looked at some of the best multivitamins available specially formulated for seniors and have chosen my favorites to share with you.

Vitamin A – keeps immune system healthy and aids in vision
Vitamin B1 or thiamine – helps keep brain and nerve cells

healthy and helpsconvert food to energy
Vitamin B2 or riboflavin – aids in red cell production and converting food toenergy
Vitamin B3 or niacin – helps convert food to energy and proper digestive function
Vitamin B4 or pyridoxine – helps produce red blood cells
Vitamin B12 – aids in keeping nervous system and red blood cells healthy
Vitamin C – aids wound healing, immune system boosting, and growth and repair oftissues
Vitamin D – aids in calcium absorption and protects from certain diseases
Vitamin E – aids in preventing cell damage
Folic Acid – helps form red blood cells and to make DNA
Vitamin K – helps with blood clotting and strong bones
Calcium – for healthy teeth and bones
Chromium – helps to regulate blood sugar levels
Iodine – helps with thyroid function and to prevent goiter
Iron – for healthy red blood cells
Magnesium – healthy immune system and strong bones
Potassium – helps control blood pressure, helps regulate water balance, and thefunctioning of the heart, kidney, muscles, and nerve function
Selenium – makes proteins that prevent cell damage
Zinc – helps wounds heal and keeps sense of smell and taste keen
Omega 3 Fatty Acids – aids in blood clotting, cell division, and musclecontraction and relaxation

## Men vs Women for Multivitamins

Although everyone can benefit from multivitamins, there are certain differences when it comes to men and women and what they need. As we age, men and women start to have different nutritional needs. For example, as women age their hormones change leaving them prone to issues like osteoporosis. Therefore, women benefit more from higher levels of calcium and vitamin D. It’s definitely worthwhile to look at the different types of multivitamins for men and women and break them down.

## Multivitamins For Women



# Multivitamins and Pregnancy

Pregnancy is probably the most important time to ensure you get the correct amount of vitamins and minerals daily. During pregnancy, your baby will take everything it needs from you, whether you get enough or not. This can often leave women

deficient in things like iron. There are a number of prenatal vitamins available and I have selected my favorites to share with you.

## What are these critical nutrients?

Folic Acid: 600 mcgFolic acid or folate is a type of B vitamin, and one of the most important nutrients for your developing baby. This vitamin is essential for new cell formation and helps your child’s neural tube develop properly during the first month of pregnancy.

### Calcium: 150 mg

Getting enough calcium is essential for women during all stages of life, but it becomes particularly important during pregnancy. Not only are you providing minerals to support healthy bone growth in your baby, calcium supplementation during pregnancy helps prevent early onset osteoporosis in mom.

Additional calcium supplements may be recommended for women that are not getting enough calcium through their diet, consult with your doctor to figure out what is best for you.

### Iron: 27 mg

Anemia is a medical condition that occurs when there are not enough red blood cells to carry oxygen around the body. It can be particularly problematic during pregnancy, because it is associated with premature birth, low birth weight, and health complications for mom (source).

Iron-deficiency anemia occurs in 15 to 20 percent of all pregnancies. A prenatal multivitamin with iron is one of the best ways to prevent this sometimes dangerous condition.

### Iodine: 150 mcg

Iodine is a mineral that many women lack in their diet, and

one that is highly important for baby. Iodine is essential for healthy brain and thyroid development, and provides extra support to mother's thyroid gland which goes into overdrive during pregnancy.

### DHA: 200 mg

DHA is a specific type of Omega 3 fatty acid, a healthy kind of fat commonly found in fish. DHA supports healthy brain development in your baby. Many women find it difficult to incorporate enough pregnancy-safe fish into their diet so a supplement with DHA can help fill this nutritional gap.

Because the effects of DHA on baby's brain were discovered fairly recently, not all prenatal vitamins contain DHA. It may be necessary to take an additional supplement if you believe Omega 3 fatty acids are lacking in your diet.

### Vitamin B6: 1.9 mg

While vitamin B6 is a somewhat less critical ingredient for a prenatal multivitamin, an ideal formulation will contain this nutrient. It helps make pregnancy easier for mom by alleviating morning sickness.

## Multivitamins for Women Over 50

Once we turn 50 our bodies start to need different things. Often we need less calories each day, however, we tend to need more nutrients to stay fit and healthy. Eating less means we often lack the essential nutrients, therefore, taking a multivitamin supplement is a good idea for most people.

## Multivitamins for Menopause

Going through menopause can be a difficult time for any woman. Hot flashes, hormones sky high and emotions all over the

place. Much like pregnancy, ever changing hormones have numerous effects on our bodies and mean it’s very important to meet all of your nutritional needs.

## Multivitamins for Men



## Multivitamins for Men Over 50

Just like women, as men age their nutritional needs change. Making sure you are meeting your daily nutritional needs is important for your overall health.

The first thing to do when choosing a multivitamin is to look for one that is specific to your age and gender. Since needs change as you age, vitamins formulated for seniors are geared to the needs of a person over age 50. Similarly, since men and women have different needs, look for the supplement that matches your gender.

Next, you will need to decide what form is best. Most multivitamins come in pills or capsules but there are also liquids, gummies, and injections from your doctor. Liquids are absorbed faster but may taste unpleasant. Pills may be more convenient, especially if you travel frequently. Fit the supplement to your lifestyle and needs.

## Multivitamins for Your Children



When choosing a multivitamin for your child it can be a daunting process. The fact is most of us put our children’s needs before our own and ensuring they have a healthy, nutritious diet is often top of the list. However, this becomes increasing difficult as they get older.

Once they start to eat outside of our home it’s almost impossible to be sure they’re making the right food choices.

Trying to get teenagers to eat broccoli rather than fast food can be like pulling teeth!

Also as our children grow into young adults and experience floods of hormones, their nutritional needs change. One way to make sure your kids are getting all the right nutrition is by giving them a multivitamin supplement.

It’s important to consider the recommended daily value of vitamins and minerals your child needs depending upon their age.

## Multivitamins for Kids

If you feel your kids could benefit from a multivitamin supplement there are certainly a lot to choose from. From gummies to powders to liquids, supplements come in all shapes and sizes. I have taken the time to look through the best supplements for kids and rated a few of my favorites with some pros and cons for each. This will hopefully allow you to make an informed decision when choosing the best multivitamin for your kids.

## Multivitamins for Teens



As our children become teenagers getting them to eat anything that is good for them can be a challenge. Plus, with junk food so quickly accessible it’s hard to know they’re meeting their daily nutritional needs when they’re eating outside of our homes. With this in mind, a multivitamin supplement can be a good solution to keeping their diets balanced and maintaining their overall health.

## Conclusion

I hope our series of articles on multivitamins will help you make the right choice for you and your family. If there’s a vitamin or product you’d like to see us research, please let me know in the comments and we might be able to make it happen!




## Dr. Mercola Whole Food Multivitamin PLUS Vital Minerals

- All Dr Mercola Whole Food Multivitamin Plus bottles are sold with the “Dr Mercola Premium Products” seal of authenticity on the cap of the bottle
- MINERALS! Dr Mercola Whole Food Multivitamin Plus

formula includes three essential minerals: Calcium, Magnesium and Potassium.

- OVER 50 INGREDIENTS! Whole Food Multivitamin Plus provides you with a highly concentrated daily supplement containing more than 50 nutritional ingredients – all in a special herbal food base.



## Prana Roxanne Printed Legging

- Dare to be different in this prAna® Roxanne Printed Legging.
- Fitted legging is snug to the body and form-fitting.
- Stretch fabrication extends, expands, and contracts to

move with you for ultimate flexibility during any sport, activity, or movement.
- Quick-drying properties make sure moisture doesn’t linger for too long.
- Stylish print on body and waistband.




## Chinese Laundry Rubie Scalloped Sandal

- Soak up some sun in the effortlessly-chic Rubie sandal!
- Synthetic upper with scalloped detailing.
- Adjustable ankle strap with buckle closure.
- Open-toe silhouette.
- Single strap at vamp.



## Calvin Klein Twill Walking Shorts

- Confidence comes easy when you’re in a Calvin Klein® Twill Shorts.
- Soft, lightweight twill short with added stretch for a comfortable and easy all-day wear.
- Minimal tonal seams throughout for a sleek finish.

- Belt-loop waist with flat-front styling.
- Four pocket design.
- Button front and a zip-fly closure.



## Agave Denim Hal Short Sleeve V-Neck Tri-Blend Jersey Stripe Block

- Confidence comes easy when you’re in a laid-back Agave Denim™ T-Shirt.
- Premium heather knit tee in a barely-there stripe design

for an elevated look.

- V-neck and short sleeves.
- Straight back yoke.
- Mini woven label at left hem.
- Straight hemline.

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# The Countless Benefits of Microcurrent



# Microcurrent Science

Hello and welcome to week 266 to Isabel’s Beauty Blog. We are so grateful of your visits, likes, and shares without them we would not be here. We strive to research and gather the best quality posts for you to enjoy, share, and our purpose gets validated. It really feels so good, thank you from all of us.

This post is about microcurrent and I am personally a huge fan of it for years. I even put together a handheld facial machine that is combined with photon light and great results with it. It makes sense we are an electrical body when I discovered it through all my research that I continuously do. I was fascinated. I am a great fan of Rife machines and Tesla equipment. I personally have seen remarkable results with microcurrent. Acupuncturists also use current with needles to reactivate the Chi currents in the meridians. There is a lot of research on the internet that you can access if you are intrigued and wish to learn more. So here we go with ours. Enjoy, share, like, engage and give credit to us,  that is one important point for our ratings. Much gratitude to you and yours.

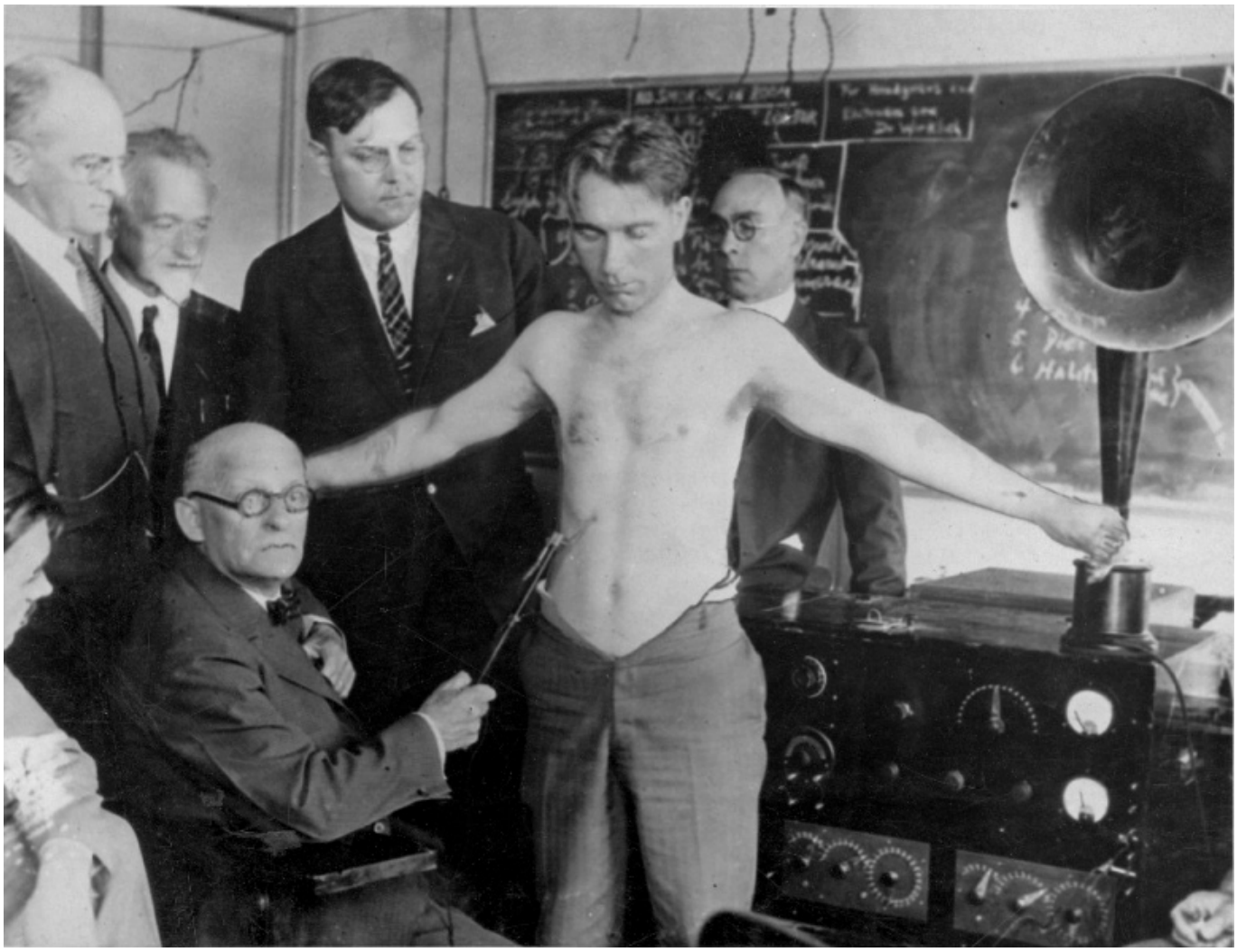
Back in the early 1900´s, Dr. Albert Abrams, M.D. was the first physician who used equipment capable of detecting specific frequencies of living tissue. Each organ and tissue within our body emit an invisible energy or vibration in the form of specific frequencies. This allows the cells to communicate with each other and to organize, monitor, and regulate complex living processes. When there is a disruption in this vibration of energy as a result of injury, illness, or the normal age process, we begin to see the symptoms of this

disruption in the form of chronic health issues and one of those issues is a result of skin atrophy and wrinkled deteriorating skin.

Microcurrent machines utilize unique technologies and specific frequency signatures to reenergize the cells and tissue back to their normal state of vibration. Microcurrent machines communicate with the cells of living tissue and muscle to resonate at a perfect harmonic tone allowing enhancement of the normal body´s biological processes naturally and non-invasively.

according to http://www.drwhitaker.com/what-is-microcurrent-therapy

**Microcurrent therapy simply restores normal frequencies within the cells, resulting in remarkable improvements in pain, inflammation, and function.**



At the cellular level, microcurrent therapy stimulates a dramatic increase in ATP, the energy that fuels all biochemical functions in the body. It also bumps up protein

synthesis, which is necessary for tissue repair. The ensuing enhancement in blood flow and a decrease in inflammation translates into reductions in pain and muscle spasms, as well as increased range of motion.

Microcurrent (often called MENS) is extremely small pulsating currents of electricity. Microcurrent units produce electrical current just above the levels of the electrical exchanges that occur at a cellular level in the human body. This is why microcurrent is readily accepted by the body's cells when applied to the body using conductive electrodes.

It is an ongoing process to heal damaged cells, and microcurrent – like the body's own electrical current – likes to go around the injury, taking the path of least resistance. However, by applying microcurrent to the site of an injury, the microamperes current is able to pick up where the body mist it. Through regular microcurrent treatments, the current is able to gradually close the gap and help restore the damaged area. This helps stimulate healing and will accelerate the body's healing process, as well as increasing the level of ATP (Adenosine Triphosphate). It is important to note that each unit has varying specifications and it is necessary to match your device selection with your specific needs in order to improve the treatment outcomes.

According to

http://prettyyoungerskin.com/best-home-microcurrent-machines/



# *Microcurrent isn't new.*

Microcurrent isn't new technology. It's been used for ages. I mean really, ages…

Electrotherapy – which, by the way, is the use of electrical currents to treat certain medical problems and diseases…

has an ancient history in the medical and other therapy-based professions.

It is said that the Romans used electric eels as a means for bringing about pain relief.

## What is Microcurrent?

### The Body

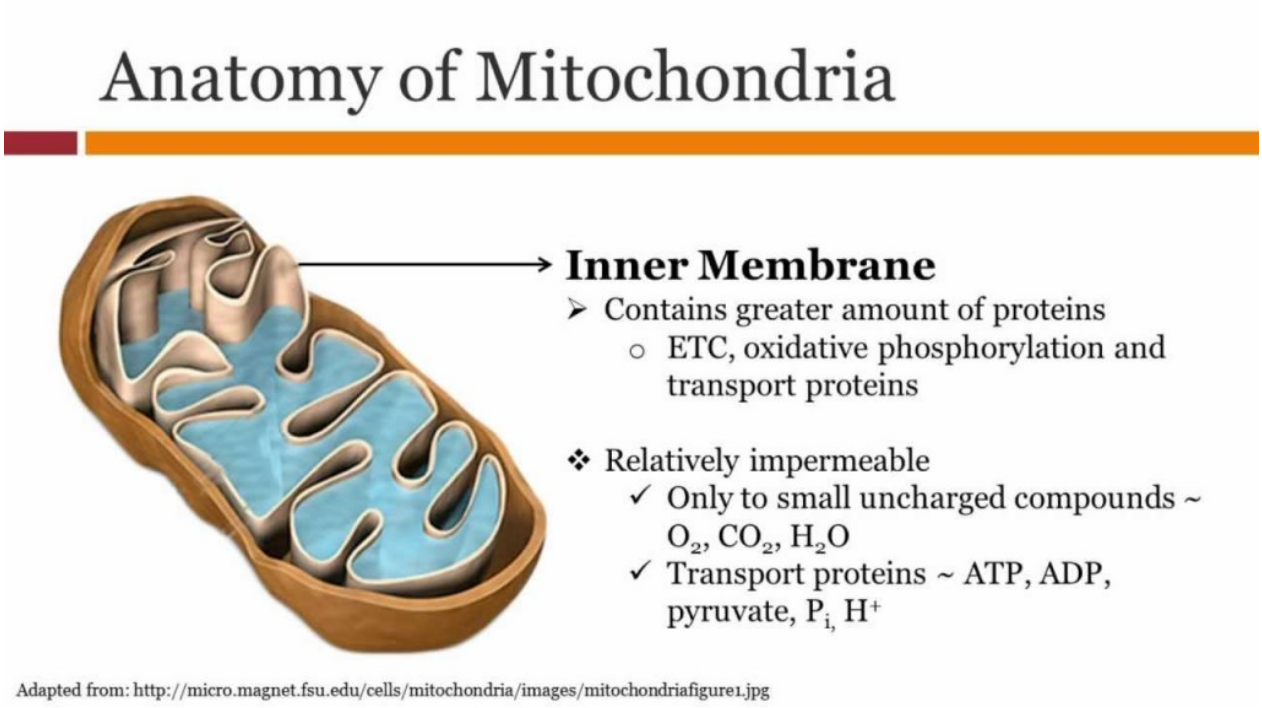
Microcurrent is naturally generated in the body to produce the energy required for muscle movement and nerve impulses. It is the body's own electrical system that provides the voltage for ionic exchanges across the cell membranes allowing for cell functions including the intake of nutrients from the blood, removal of cellular waste and movement of impulses along nerve pathways. The harmonious flow of these tiny electrical signals is also essential for healthy cell function and cell-to-cell communication.

Cells are similar to miniature batteries and electrical

generators by this action they conduct electricity, create electrical fields, and are powered by a very low level of electrical voltage known as Microcurrents. The unique bipolar membrane surrounding each cell serves as a medium that separates intracellular and extracellular fluids. In the inside of this membrane are channels that allow for communications in and out of the cell. The opening and closing of these channels are very well regulated in order to influence cell function.

Either single molecules or complexes of molecules within the channels allow for the passage of positively and negatively charged atoms (ions) such as sodium, potassium, chloride and calcium. Membrane potentials the name for the voltage difference in electrical potential across cell membranes.This is the *Discovery of ionic channels*

This method invented by German Nobel prizewinners, Erwin Neher and Bert Sakmann. These two scientists were able to record how a single channel molecule alters its shape to control the flow of current in and out of the cell, all within a few millionths of a second.




# Mitochondria

Mitochondria is essential to the growth and function of all

cells and accomplish a multitude of metabolic tasks.

There can be as many as 500 to 2000 mitochondria scattered throughout the cytoplasm of a cell. The amount is specific to the location of the cell in the body. Mitochondria are the sites for aerobic respiration and energy production and contain their own DNA. They act as storage units for energy converted from food nutrients. Chemical energy is stored as sugars, amino, and fatty acids and is used for conversion into ATP (Adenosine Triphosphate).

Energy is manufactured in the form of ATP through the collaboration actions of proteins located in and on the inner mitochondrion membrane that is called the electron transport chain  Electrons are passed down this transport chain releasing energy at each step of the conversion process (Krebs Cycle).

This complex electrochemical process is known as ATP synthesis.

According to http://microcurrent4people.com/articles/Microcurrent-Therapy.php

***ATP (Adenosine triphosphate):*** ATP is considered by some biologists as the “currency of life.” It is a reservoir of energy that is integral and dynamic to the function of nearly every cell in the human body.In one instance ATP is used in muscle contraction, protein biosynthesis, and nerve transmission. One of the elements of microcurrent therapy is that research has shown that application of microamperes can increase the level of ATP production by up to 500%. This is crucially important at the site of an injury ATP supplies can often become diminished. Also, unlike other forms of electric

therapy, microcurrent has a cumulative effect on ATP levels. Therefore by applying microcurrent ATP levels can be increased and in turn, the body’s healing process accelerates, by repeated use.

New research reveals that the role of the mitochondria in health and disease is crucial. Once defined as an energy factory, mitochondria also have specialized responsibilities that adapt to each phase of our life from embryo to mature age. They are closely involved with most of the major metabolic pathways used by the cell to build, break down, and recycling of its molecular building blocks. It is also these progressive metabolic changes that become so significant when assessing the actual biological age of cells and the state of their health.

## Microcurrent in Esthetics



Low level of electrical current (500 microamperes) works in harmony with the body’s natural healing processes.  At a cellular level, microcurrent stimulates activity in the cell to create massive amounts (a 500% increase) of adenosine tri-

phosphate (ATP), known as the “energy of life”.  ATP drives a number of biological processes including muscle contraction, re-education, and protein (collagen and elastin) synthesis. Facial toning is achieved through muscle re-education, working a muscle from its origin and insertion inward to shorten slackened muscles (such as in the cheeks or forehead), and working from the belly outward to lengthen contracted muscles (such as the muscles that pull the corners of the mouth downward).  Microcurrent also offers specific iontophoresis which allows superior penetration of serums and skin care products into the skin.

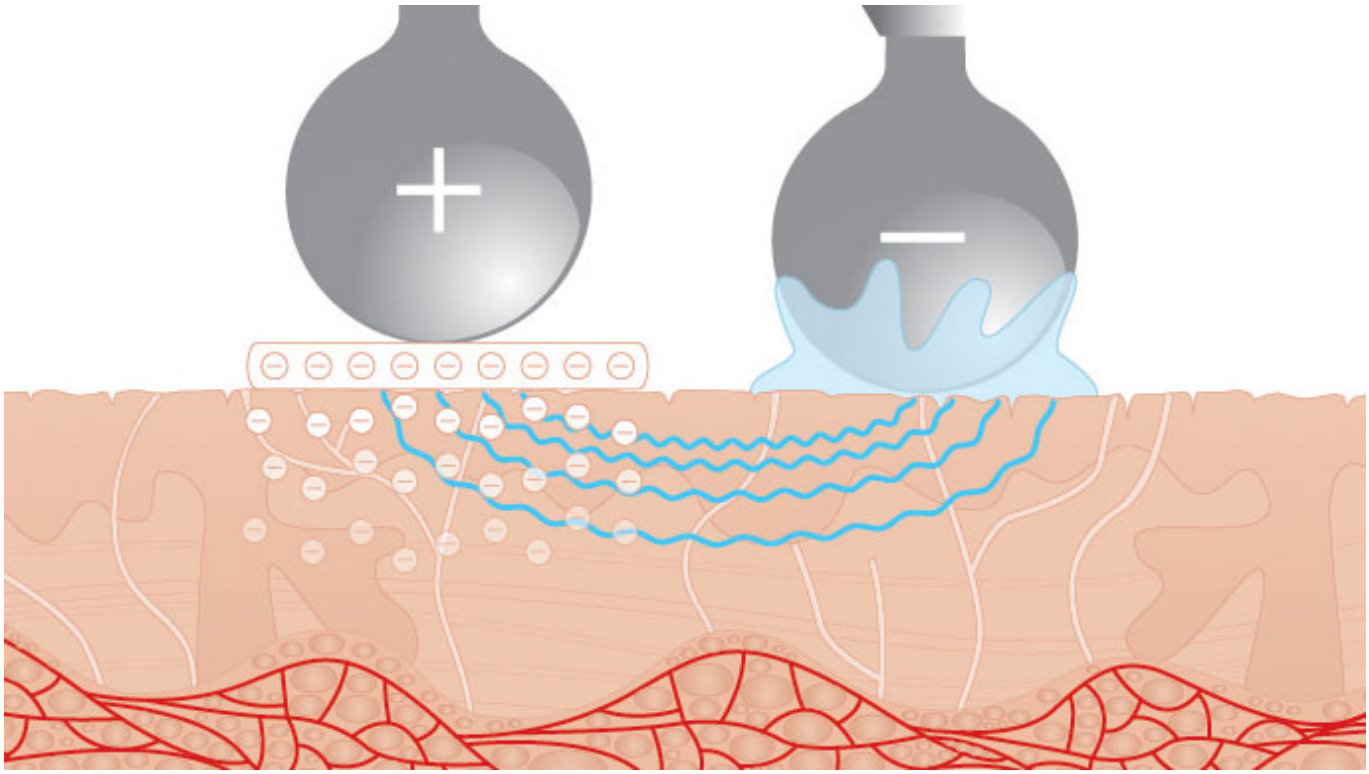
New applications for microcurrent technology encompass the beauty industry for face and body sculpting. There are major benefits when applying these external energy sources. The application of microcurrent also supports skin regeneration by encouraging the repair process. Damaged skin requires a program of restoration that is gradual and progressive for long-term optimum wellbeing, with that being said the process is of maintenance. Clearly, all modalities of correction certainly have their place. Prior to choosing a course of treatment including product selection, the first step in skin correction is to determine the level of deterioration caused by sun damage, the aging process, and other skin conditions. Microcurrent gently encourages repair of the stratum corneum, the bi-layers, and dermal components to foster the skin into an ideal state. Cosmetic Microcurrent is beneficial for improvement in the appearance of the skin.

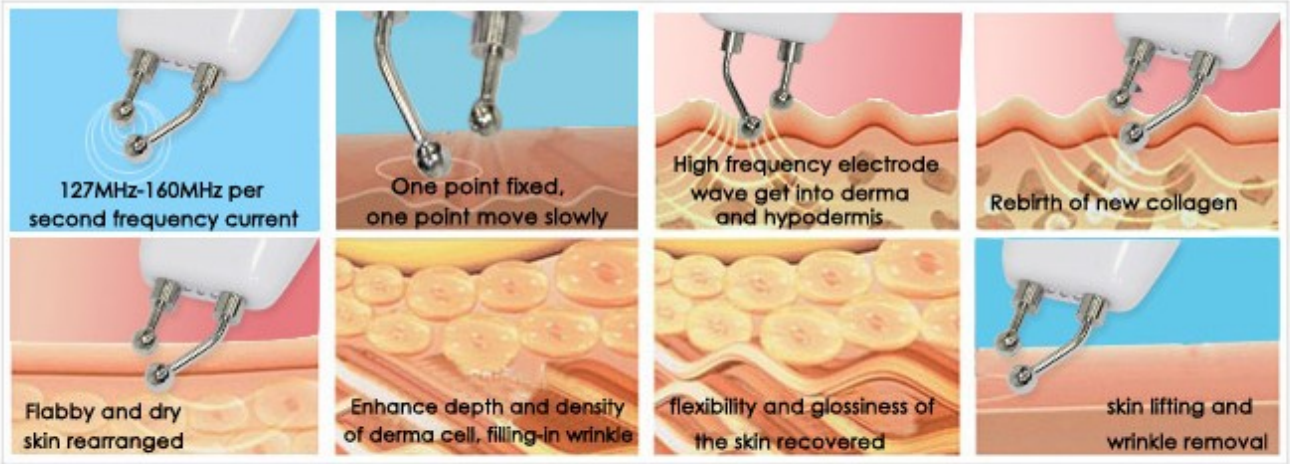
The effects of microcurrent are accumulative and studies have confirmed that there are significant side benefits including muscle re-education. Be aware that the results are also dependent upon lifestyle, age, health, diet the amount of dedication to the use of it and condition of the skin discovered after many years of using Microcurrent and studying the process that the use of Fulvic and Ionic minerals helps with the conduction and communication of the Microcurrent

among the cells.  The concept that ATP can be stored is more of a reason for performing a series of sessions whereby there is a re-education process of muscle tissue. Furthermore, the low intensity of microcurrent cannot cause visible muscle contractions or marked discomfort.



**The probe should be placed at the beginning and end of the muscle**






## The Technology – Microcurrent

The use of Microcurrent in medicine and cosmetic improvement has been studied for more than 30 years. Stimulation with microcurrents is also called biostimulation or bioelectric therapy because it encourages cell physiology and growth. Essentially, Microcurrent is a low level of electrical current that mirrors the natural current flow of the body. It serves as a non-invasive augmentation of the body's natural electrophysiology through frequency, polarity balancing, and homeostasis. The effects of microcurrent (electroporation) in

clinical medicine has demonstrated acceleration of healing bone tissue, wound healing, muscle rehabilitation, TMJ, tendon repairs, and collagen remodeling.

## Some of the benefits:

- Promotes cell metabolism and tissue repair
- Supports circulation – blood and lymph
- Reduces inflammation
- Helps increase mitochondrial activity through increasing ATP
- Increase natural production of collagen and elastin
- Support scar repair by dispersing scar tissue and collagen remodeling
- Increase protein synthesis, gluconeogenesis (GNG) and membrane transport.
- Re-educate and rejuvenate muscle tissue
- increase the natural production of collagen
- increase elastin
- increase the natural production of collagen
- increase elastin
- increase blood circulation
- Aged and slackened skin.
- Improvement of skin texture.
- Fine lines and wrinkles.
- Reduction of acne scars.
- Use pre and post surgery to improve the both muscle and tissue for optimum outcome.
- Post surgically the application of microcurrent supports the reduction of trauma, irritation, inflammation and helps foster skin healing as well as minimizing scar tissue.
- Muscle tightening all over the body areas.

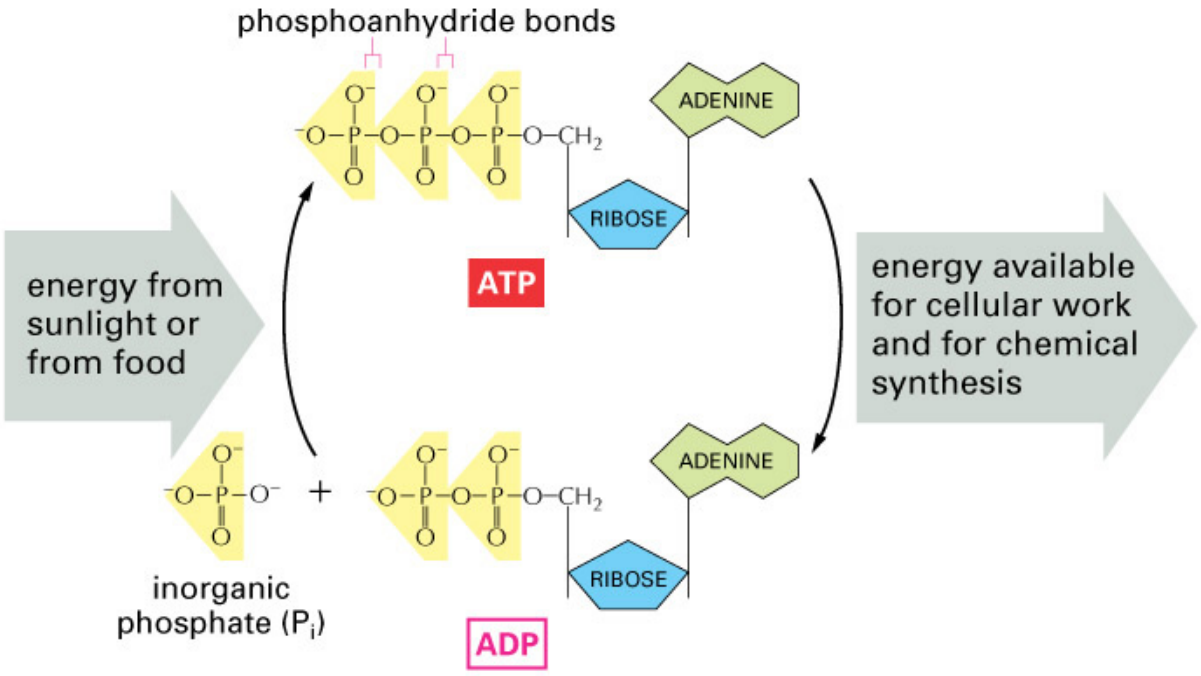



Figure 3-32 Essential Cell Biology, 2/e. (© 2004 Garland Science)

# The Research

Reports in the research involving the application of electrical stimulus on wounded tissue have been documented since the 1830’s when Carlos Matteucci confirmed that electrical current was generated in injured tissue. During the past 30 years and with the invention of sophisticated instrumentation, scientists are able to explore and measure the effects of low level of electrical stimulation and the positive effects on tissue. The principles of microcurrent in both healing and beauty therapy applications share a commonality and consensus regarding its effects on improving the function and appearance of tissue. In wounded skin, there is a specific biological pathway for repair. Referred to as current of injury, living tissue has a direct current surface electro-potential to regulate this healing process. Moreover, intervention is critical in order to prevent further deterioration.

It is reasonable to believe that this concept holds true for aging and damaged skin including injury to the acid mantle, stratum corneum, and epidermis. There is an interruption in the biological movement of electricity that controls cell behavior for normal skin function. The ability for the skin to repair and maintain water balance, the process of epidermal differentiation, collagen synthesis, and maintaining an overall wellbeing appearances it becomes increasingly challenged. More so this is apparent in xerosis skin (abnormal dryness). It has been confirmed that the application of low levels of microcurrent directly affects circulation (capillary density and perfusion), increased ATP, and improved fibroblast activity for synthesis. of collagen.




## Study review

In a study with important implication for electrotherapy using microcurrent, Ngok Cheng (1982) verified the effects of electric current of changeable intensity on variables crucial to the healing process. At 500µA (microamps) the production of

ATP (cell energy) increased by approximately 500%, while amino acid transport increased by 30-40% over control levels using 30 to 40 percent above the control levels using 100 to 500 µA. When microamps were increased to the milliampere range, ATP generation was depleted, amino acid uptake was reduced by 20-73 percent and protein synthesis was inhibited by as much as 50 percent. Conclusively it was suggested that the higher milliamp currents inhibit healing whereas the lower currents promote healing.

Robert O. Becker, M.D. author of "The Body Electric", performed pioneering research with his study of the field of regeneration and its relationship to electrical currents in living things. He made reference to comparing microcurrent to acupuncture reflecting on the system of meridians that connect all parts of the body. Furthermore, he recognized the action of electrical currents, via the perineural cells and circulatory system. The future for the use of microcurrent relies on education and understanding of the cells and body systems and the benefits that are available from this innovative technology. The intended use for microcurrent in esthetics is to present a powerful and effective tool to aid in inspiring a healthy skin transition from youth to maturity.

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Disclaimer. In no way does it replace the advice of a medical practitioner.

**Question:** Is this treatment painful?

**Answer:** No. In most cases it is sub-sensory, and many people find it quite relaxing.

**Question:** How long does each treatment take?

**Answer:** Most facials take approximately 60 to 90 minutes.

**Question:** How soon will I see some improvement?

**Answer:** Although a remarkable difference is seen after the first treatment, the benefits of microcurrent are cumulative, and as such, microcurrent treatments are typically performed in a series to gain maximum anti-aging results.

**Question:** Is microcurrent for everyone?

**Answer**: While most people can benefit from the application of microcurrent, there are some absolute contraindications; it cannot be performed on persons with epilepsy, pacemaker, pregnant women, or anyone with active cancer.

**Question:** How long will the results last?

**Answer:** After you have completed the Microcurrent maintenance treatments at 3 to 6-week intervals are recommended to retain your results.( everyone is an individual result are individual as well)

# Some Great Micro Current Machines




## NuFace Mini (limited edition)

The NuFACE mini is an FDA-cleared Facial Toning Device that gently stimulates the larger surface areas of the face to improve your appearance.

COSMETIC
EXECUTIVE
WOMEN

INSIDERS'
BEAUTY AWARD

WINNER
2018



# NuFACE Trinity + ELE Attachment Kit

The NuFACE Trinity is an FDA-cleared, multi solution, skin care device innovatively designed with interchangeable treatment attachments to help rejuvenate and improve your appearance.


NŪFACE
by CarolCole™
Gel Primer
STEP 1
For Normal Skin
Paraben-free / Dye-free
2 FL OZ / 59 ml e

# NuFACE Gel Primer

The NuFACE Gel Primer is a unique, chloride-free electrolyte gel that is the essential first step to using the NuFACE Microcurrent Device. The NuFACE Gel Primer allows the NuFACE Device to easily glide across the skin and ensures conductivity for optimum lifting, toning, and contouring results. Convenient, smaller size – ideal for travel.


NŪFACE
by CarolCole™
NEW!
Hydrating
Crème
Crème Primer
STEP
1
For Normal
to Sensitive Skin
2 FL OZ / 59 ml e

# NuFACE Creme Primer

The NuFACE Crème Primer is a unique, high quality hydrating crème that is the essential first step to using the NuFACE Microcurrent Device. The NuFACE Crème Primer allows the NuFACE Device to easily glide across the skin and ensures conductivity for optimum lifting, toning, and contouring results. Convenient, smaller size – ideal for travel.

