

# **Active Fx, Deep Fx & Total Fx CO2 Facial Resurfacing**

## **By Doctor Skin**

### **Instructions**

This is an informed consent document to help inform you about carbon dioxide (CO2) laser treatment procedures, risks, and alternative treatments.

It is important that you read this information carefully and completely. Please initial each page at the bottom, indicating you have read the page and sign the consent for the procedure.

Thank you.

### **What is laser skin resurfacing?**

The carbon dioxide laser has been used for more than 25 years for treating the skin. An intense beam of light is emitted that heats and vaporizes skin tissue instantly. Recently developed carbon dioxide can remove the layers of skin, vaporizing the ridges of scars and wrinkles and smoothing out the surface of the skin. In addition, the skin tightens and collagen remodeling occurs, with layers of new collagen replacing sun-damaged collagen.

### **Alternative Treatment**

Alternative forms of treatment include not undergoing the proposed CO2 laser skin treatment procedure. Other forms of skin treatment (chemical peel) or surgical procedures (dermabrasion or excisional surgery) may be substituted. In certain situations, the CO2 laser may offer a specific therapeutic advantage over other forms of treatment. Alternatively, CO2 laser treatment procedures in some situations may not represent a better alternative to other forms of surgery of skin treatment when indicated. Risks and potential complications are associated with alternative forms of treatment that involve skin treatments or surgical procedures.

### **Benefits**

Laser resurfacing may significantly reduce pigment, sun damage, facial wrinkle lines, scars, and acne scarring. The length of time these benefits will last is unknown. Sunspots and brown spots are often removed as well.

### **Contraindications**

No Accutane use in past one year. No use of tetracycline, minocycline, doxycycline, or erythromycin in last month. Any history of vitiligo, scleroderma, collagen disorders, radiation treatment, skin cancer, psoriasis, keloid formation, pregnancy, breastfeeding. Notify Dr. Doctor if you have sleep apnea or any other breathing problems.

### **Risks and discomforts**

There are both risks and complications, both temporary and permanent, associated with all laser treatment procedures of the skin. Risks involve both items that specifically relate to the use of laser energy as a form of surgical therapy and to the specific procedure performed. An individual's choice to undergo a procedure is based on the comparison of risk to potential benefit. Although the majority of patients do not experience these complications, make sure you understand the risks, potential complications, and consequences of laser skin treatment.

The most common side effects and complications are explained below.

**Erythema (redness of skin):** the laser-treated areas have a distinctive redness, which is much more vivid than untreated areas. This redness generally will last 3-10 days, depending on the level of energy and density used (discuss with the physician). This redness represents increased blood flow from healing and inflammation, and with new growth of the superficial tissue it fades gradually.

**Inflammation (swelling):** this is common and varies from person to person. Most patients will swell mildly, but in some patients the swelling is more severe. Your skin may feel tight, full, flushed, or swollen following treatment partly from this swelling but also from the tightening effect of the procedure.

\_\_\_\_\_Initials

**Hyperpigmentation (increased skin color):** this may occur in those with dark complexions and almost always is temporary. It responds to the use of hydroquinone, UVA protective sunscreens, and topical retinoids post-procedure. Hyperpigmentation may also occur in areas of permanent makeup. Notify the physician if you have permanent makeup.

**Hypopigmentation (decreased skin color):** this has been very uncommon and is usually related to the depth of treatment, although it can occur for unknown reasons even when the procedure has been performed properly. In addition, removing sun-damaged skin can return you to your lighter color similar to areas on your body that have not had long-term sun exposure (i.e., underarms). Delayed hypopigmentation can occur months to years after the procedure and can be permanent.

**Color change:** Laser treatments may also potentially change the natural color of your skin. Skin redness occasionally lasts up to 6 months following CO2 laser skin treatment. There is the possibility of irregular color variations within the skin including areas that are both lighter and darker (as described above). A line of demarcation between untreated skin and skin treated with lasers can occur. Laser treatment procedures may produce visible patterns within the skin. The occurrence of this is not predictable.

**Scarring or Keloids:** scarring is not anticipated as a consequence of this procedure, but any procedure in which the surface of the skin is removed can heal with scarring. This usually occurs because of some secondary factor that interferes with healing, such as infection, irritation, scratching, or poor wound care. It may also occur because of a patient's condition that predisposes to scarring, keloids, or poor wound healing (i.e. diabetes). Scarring from infection, irritation, or scratching does blend and ordinarily disappears in a few months, but some scarring may be permanent if it occurs. Hypertrophic scars or keloids in susceptible people may suddenly appear. Additional treatments may be needed to treat scarring. Most of these respond to injections or special creams. Some scarring could be permanent. Scars may be unattractive and of different color than the surrounding skin. Notify your physician if you have ever used Accutane, as this can increase your risk for scarring.

**Accutane (isotretinoin):** Accutane is a prescription medication used to treat certain skin diseases. This drug may impair the ability of skin to heal following treatments or surgery for a variable amount of time even after the patient has ceased taking it. Individuals who have taken this drug are advised to allow their skin adequate time to recover from Accutane (approximately one year) before undergoing CO2 laser skin treatment procedures.

**Burns/Ulcers:** Laser energy can produce temporary or permanent burns/ulcers. Adjacent structures including the eyes may be injured or permanently damaged by the laser beam. Burns are rare, yet represent the effect of heat produced within the tissues by laser energy. Additional treatment may be necessary to treat laser burns. Inflammable agents, surgical drapes and tubing, hair, and clothing may be ignited by laser energy. Laser smoke (plume) is noxious to those who come in contact with it. This smoke may represent a possible bio-hazard, although suction is used to collect this smoke/plume.

**Bleeding:** Bleeding is rare following CO2 laser skin treatment procedures. Should bleeding occur, additional treatment may be necessary.

**Skin tissue pathology:** Laser energy directed at skin lesions may potentially vaporize the lesion. Laboratory examination of the tissue specimen may not be possible.

**Distortion of anatomic features:** Laser skin treatments can produce distortion of the appearance of the eyelids, mouth, and other visible anatomic landmarks. The occurrence of this is not predictable. Should this occur, additional treatments including surgery may be necessary.

**Damaged skin:** skin that has been previously treated with chemical peels or dermabrasion, or damaged by burns, electrolysis (hair removal treatments), or radiation therapy may heal abnormally or slowly. The occurrence of this is not predictable. Should this occur, additional treatments including surgery may be necessary.

**Skin cancer/skin disorders:** CO2 laser skin treatment procedures may not offer protection against developing skin cancer or skin disorders in the future.

**Pain:** Very infrequently, chronic pain may occur after CO2 laser skin treatment.

**Allergic reactions:** In rare cases, local allergies to tape or preservatives used in cosmetics or topical preparations have been reported. Systemic reactions which are more serious may result from drugs used during the procedure and prescription medicines. Allergic reactions may require additional treatment. Allergic reactions or irritations to some of the medications or creams may develop. An increased sensitivity to wind and sun may occur but is usually temporary and clears as the skin heals.

**If you have had a cold sore or herpes outbreak, notify your physician, as laser treatment can reactivate it.**

**Drug side effects:** The drugs that may be administered can have the following general side effects:

**Retin-A, Renova (or other topical vitamin A creams):** sensitivity to sunlight, including sunlamps, mild skin irritation, or dryness.

**Hydroquinones or bleaching creams:** mild skin irritation, itching, burning sensation.

**Valtrex or acyclovir (antivirals):** headaches, nausea, allergic reaction

**Keflex (or other antibiotic):** dizziness, headache, nausea, rash, allergic reaction, or other

**Narcotic pain medication:** lightheadedness, dizziness, sedation, nausea, vomiting, or other

**Valium:** dizziness, lightheadedness, sedation, respiratory depression

**Patient failure to follow through:** Patient follow through following a laser skin treatment procedure is important. Post operative instructions concerning appropriate restriction of activity, use of dressings and skin care, and use of sun protection need to be followed in order to avoid potential complications, increased pain, and unsatisfactory results.

**Unsatisfactory result:** There is a possibility of an unsatisfactory result from these procedures. CO2 laser treatment procedures may result in unacceptable visible deformities, skin slough, loss of function, and permanent color changes in the skin. You may rarely be disappointed with the final result. It is possible that you may derive no benefits from the procedure. Whereas this procedure is effective in most cases, no guarantees can be made that a specific patient will benefit from treatment. This procedure may not completely improve or prevent future skin disorders, lesions, or wrinkles. No technique can reverse the signs of aging permanently. Do not sign this form unless you have had a chance to ask questions and have received satisfactory answers to all of your questions.

**Delayed healing:** It may take longer than anticipated for healing to occur after laser treatments. Skin healing may result in thin, easily injured skin. This is different from the normal redness in skin after treatment.

**Unknown risks:** There is the possibility that additional risk factors of CO2 laser skin treatments may be discovered. The results of performing skin tightening surgery and CO2 laser treatments is unknown in terms of the combination effect of the two procedures and potential complications, depending on the area treated.

**Anesthesia:** Both local and oral anesthesia involve risk. There is the possibility of complications, injury, and even death from all forms of anesthesia and sedation. Notify Dr. Doctor if you have sleep apnea or any other breathing problems.

**Additional treatment or surgery necessary:** There are many variable conditions which influence the long term result of CO2 laser skin treatments. Even though risks and complications occur infrequently, the risks cited are the ones that are particularly associated with these procedures. Other complications and risks can occur but are even more uncommon. Should complications occur, additional surgery or other treatments may be necessary. The practice of

medicine and surgery is not an exact science. Although good results are expected, there is no guarantee or warranty expressed or implied on the results that may be obtained.

**Financial responsibilities:** The cost of CO2 laser skin treatment involves several charges for the services provided. This includes fees charged by your physician, the cost of some pre- and post-procedure skin care, medications, supplies, laser equipment and personnel, and other costs. It is unlikely that cosmetic procedure costs would be covered by an insurance plan. Even if there is some insurance coverage, you will be responsible for necessary co-payments, deductibles, and charges not covered. Additional costs may occur should complications develop. Secondary surgery or treatment charges involved would also be your responsibility.

**Disclaimer:** Informed consent documents are used to communicate information about the proposed treatment of a disease or condition along with disclosure of risks and alternative forms of treatments. The informed-consent process attempts to define principles of risk disclosure that should generally meet the needs of most patients in most circumstances. However, informed-consent documents should not be considered all inclusive in defining other methods of care and risks encountered. Your physician may provide you with additional or different information which is based on all the facts in your particular case and the state of medical knowledge. Informed-consent documents are not intended to define or serve as the standard of medical care. Standards of medical care are determined on the basis of all of the facts involved in an individual case and are subject to change as scientific knowledge and technology advance and as practice patterns evolve.

**It is important that you read the above information carefully and have all or your questions answered before signing the consent page. Please initial each page of this document.**

**Consent**

My signature indicates the following: 1) I have read and understand the information outlined above; 2) I have discussed questions with the physician and/or staff; 3) It has been explained to me in a way that I understand the above treatment, alternatives, and I am aware of the risks, benefits, and alternatives and I am satisfied with the explanation; 4) I have received the pre-treatment and post-treatment information sheets; 5) I am not pregnant and there is no possibility that I could be pregnant and I am not breastfeeding; 6) I understand the risks of the topical, local and oral anesthesia and I consent to taking them; 7) I authorize the physician to perform the mentioned procedures and treatments and any other treatments necessary should unforeseen conditions/complications occur; 8) I acknowledge that no guarantee has been given by anyone as to the results that may be obtained; 9) For the purposes of advancing medical education, I consent to the admittance of assistants and/or observers in the procedure room unless otherwise notified. 10) I know and understand all of the warning signs of problems, side effects, and complication (i.e. burns, ulcers, blisters, signs of infection, redness and swelling above what is described as expected and any other warning sign) and know to immediately contact Dr. Doctor at the office or by cell if I see any of these signs or if I have any questions.

I give permission for any pictures or videotape taken of me may be used for either teaching or publication, if considered appropriate \_\_\_\_\_(YES); \_\_\_\_\_(NO).

I give permission for my pictures to appear in Doctor Skin's photo album for other potential patients to view \_\_\_\_\_(YES); \_\_\_\_\_(NO).

\_\_\_\_\_  
Signature of the Patient

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Physician

\_\_\_\_\_  
Date

\_\_\_\_\_  
Initials

# Doctor Skin Co2 Laser Skin Resurfacing Post-Care Instructions

(Active FX, Deep FX, Total FX)

## Immediate Post-Care:

- Place cold packs on the skin immediately after treatment (you may use ice, frozen peas, or iced wash clothes for the next few days. The ice/pea ziplock bags may be put in a pillow case and then on the skin if it is too cold directly on the skin. You may have a “hot” feeling for the first few hours after treatment and the cold packs help greatly. After the first hour, patients do not usually experience discomfort, although you may have a “full, flushed, sun-burnt” facial feeling. Ice is your best friend, you cannot ice too much!! Stronger treatments may have more discomfort. Some may experience pain, which we can medicate for (notify us of pain).
- Use arnica under the tongue “4X4X4” four tablets under the tongue, four times/day for four days or more.
- Apply Restorative Ointment often to keep a generous layer on constantly. You can gently wash the area, late that night or preferably the next day (with facial cleanser), but you should always reapply the Restorative Ointment until all redness is resolved and you only have a pinkish coloration. The Avene Cicalfate and/or Skin Medica Ceramide and Dermal Repair can then be used (depending upon what we recommend) until the pink is gone.
- Do not pick at your skin and avoid aggressive scrubbing of the skin.
- You may shower that night or the next day and wash hair, but avoid excessively hot water.
- Avoid exfoliation for at least two-four weeks (depending on recommendation).
- Avoid sun exposure until all pinkness is gone and for 4 weeks after treatment, and wear a sunblock (not just sunscreen) containing zinc oxide after the fifth day. Use sunblock whenever outside for at least 4-6 weeks.
- Do not wash your face until the late that night (if early morning procedure) or the next morning (day 1). If you want to take a shower, you should take a bath so you do not let water touch your face for the first 24 hours.
- Do vinegar soaks. They help with itching, clean the skin, and help the pigment/skin shedding/sloughing process. Mix two tablespoons of vinegar with a cup of cold water. Then soak a wash cloth in the solution and cover your face with the cloth for 10-20 minutes.
- Avoid waxing of the treated area for 4-8 weeks after treatment, consult with Dr. Doctor before waxing.
- You should use ice or frozen peas for the next few days. **Ice is your best friend, you cannot ice too much!**
- **Just to reiterate: Redness and swelling is expected to be moderate to severe. Remember it is normal to look worse the day after the procedure and even worse on the second day! However, if blistering, extreme redness and swelling, sign of burns, ulcers, infection, smell, or anything you are concerned about occurs, notify Dr. Doctor by office or cell immediately.**

## DAY 1 (first full day after treatment)

Continue Restorative Ointment and begin cleansing (after 24 hours) and lightly wiping skin debris with the facial cleanser (2-3 times/day). If you have been given the cooling spray, use it only after cleansing (before ointment) and after each time you cleanse. So now the order is: cleanse, spray, ointment, and reapply the ointment throughout the day. Do not use a wash cloth until told to do so. You may shower in cold/warm water and wash hair. Make sure you reapply the ointment frequently. You should use ice or frozen peas for the next few days. Continue arnica and other prescribed medication.

## DAY 2

Continue cleansing, Restorative Ointment, and relatively constant icing. If debris is dry and brown, you may wash with the facial cleanser 3-4 times/day and use vinegar soaks. Do not rub your face aggressively with a wash cloth. Let the cleanser take off any debris. Continue arnica and other prescribed medication.

## DAY 3-5

Continue cleansing, and Restorative Ointment. Remove residual debris with the facial cleanser. **Begin Skin Medica Recovery Complex and Ceramide Cream** before ointment. So now the order is: cleanse, Recovery Complex, Ceramide, ointment and reapply the ointment throughout the day. If you begin to itch or shed skin, you may use the Avene Cicalfate if you are given this product also. You can also mix two tablespoons of vinegar with a cup of cool water. Then soak a wash cloth in the solution and cover your face with the cloth for 10-20 minutes. Continue arnica. Avene Cicalfate may or may not be added here.

## DAY 5-7

Use the ceramide cream and ointment until pinkness is gone (for a maximum of ten days) and then stop. At this point, your physician may have changed you to using the Avene Cicalfate, Skin Medica Dermal Repair cream, Hydrating Complex, or other skin care. You can continue to use the facial cleanser. You may wear make-up when pinkness is gone completely.

## EXTRAS

- REMEMBER: DO NOT PICK AT YOUR SKIN!
- Sleeping on your back, with a few pillows to elevate your head may help reduce swelling.
- Advil (ibuprofen) 800 mg three times per day or Aleve 500 mg two times per day may be taken as an anti-inflammatory to help decrease discomfort and swelling.
- If you experience itching, you may take Benadryl 25 mg up to four times a day (over-the-counter), or you can do vinegar soaks. Remember Benadryl may make you drowsy or wired! Vinegar Soaks also help with itching.
- It is normal for your skin to have lighter and darker areas as it heals. The skin will likely heal unevenly, with the eyes/mouth areas taking longer to heal.
- A flare-up of acne or formations of milia (tiny white bumps on the skin) may occur 2-3 weeks Post-Treatment. These symptoms are not unusual and can be easily resolved. Contact our office if this occurs and we will provide you with an antibiotic prescription if necessary.
- Abnormal Healing. If you notice any blisters, burns, cuts, bruises, crusting/scabs, areas of raw skin, ulcerations, active bleeding, increased discomfort or pain, pigment changes (lighter or darker than usual complexion), or any other problems, please contact Dr. Doctor immediately.

Questions/Concerns. Post-treatment healing varies from patient to patient. If you have any questions or concerns, please contact Doctor Skin at or Dr. Doctor on his cell phone at

**I understand instructions and warning signs and will call immediately**

Initial \_\_\_\_\_

## **Doctor Skin Co2 Laser Skin Resurfacing Pre-Care Instructions: (Active FX, Deep FX, Total FX)**

### **Contraindications:**

No Accutane use in the past one year. Any history of vitiligo, scleroderma, collagen disorders, radiation treatment, skin cancer, psoriasis, scarring, keloiding, pregnancy, breastfeeding. Notify Dr. Doctor if you have sleep apnea or other breathing problems.

### **Pre-Care Instructions:**

- Notify us if you have a history of developing cold sores (herpes infections), facial sores, or any other type of infection. Also notify us if you have tattoos or permanent makeup.
- Minimize sun exposure and use daily sunblock containing zinc oxide. Discuss with Dr. Doctor how long you must be completely out of the sun and off self-tanner before treatment.
- Fill your prescription and begin taking the antiviral (Valtrex or other) the day before the procedure. Bring one tablet of Benadryl (25 mg, over-the-counter) for the procedure. If you have a long ride home, bring a cooler of ice for afterwards.
- Purchase a bottle of white **vinegar** for vinegar soaks. Also purchase small cotton washcloths and wash them in unscented, powder detergent using an extra rinse cycle. Do not use fabric softener or dryer sheets on anything that will come in contact with your face or hands. This includes bed sheets, pillowcases, washcloths, and towels.
- Maintain a healthy diet.
- Come in for procedure without makeup and in comfortable clothes.
- Stop Retin A two weeks before and bleaching creams 5 days before.
- Avoid waxing for 1 week before and 4-8 weeks after treatment.
- Begin taking arnica "4X4X4" four tablets under tongue four times per day for four days prior to procedure (and four days after).

### **Morning of the procedure:**

Eat a solid meal. Cleanse face and do not wear makeup or perfume to treatment. Dress in comfortable clothes with a loose fitting, low cut shirt. If you have long hair, wear in back in a ponytail away from face and neck.

### **Medication Protocol:**

**Valtrex (valcyclovir)** – 1 daily starting day before procedure. **Clindamycin** (if given) twice/day starting day before. **Diflucan** (fluconazole) (if given) take one the day before procedure. **Medrol Dose Pack** (if given) – take when directed. **Valium (diazepam)/Demerol (meprogan)/Phenergan (promethazine)** – 1 each on the way to procedure and bring rest (must have a driver if taking these).

# Doctor Skin Active/Deep/Total Fx CO2 Preop

Patient: \_\_\_\_\_

Date: \_\_\_\_\_

Allergies/sensitivities/type of reaction: \_\_\_\_\_

Chronic medical conditions, sleep apnea: no yes, list: \_\_\_\_\_

Known blood borne infection? no yes, describe: \_\_\_\_\_

Current anticoagulants or medications, herbals that can affect coagulation? no yes, list: \_\_\_\_\_

Using products with glycolic acid or retinols? no yes, describe: \_\_\_\_\_

Previous history of cold sores? no yes

Previous face lift? no yes, when: \_\_\_\_\_

Previous resurfacing? no CO<sub>2</sub> Er:YAG Other \_\_\_\_\_  
When? \_\_\_\_\_

Previous history of fillers? no yes explain: \_\_\_\_\_

Previous history of melasma/PIH? no yes, explain: \_\_\_\_\_

Does patient exhibit evidence of melasma, PIH, sun exposure, self tanner? no yes, explain: \_\_\_\_\_

Are there telangiectasias, vascular malformations present? no yes, explain: \_\_\_\_\_

Previous history of keloid formation? no yes

Isotretinoin (or Accutane®) use within last 6 months? no yes

Are any lesions suspicious for cancer? no yes (This is an absolute treatment contraindication)

Circle as appropriate: Fitzpatrick Skin Type I II III IV V VI

Glogau Photoaging I II III IV

Fitzpatrick Wrinkle Score MILD 1 2 3 MODERATE 4 5 6 SEVERE 7 8 9

Treatment Indication: \_\_\_\_\_

**Pre treatment regimens/instructions:** check and describe, if instituted.

HSV \_\_\_\_\_

Bleaching agent \_\_\_\_\_

Stop Hydroquinone \_\_\_\_\_ prior to procedure

Stop products containing glycolic acid, retinols, and retinoids \_\_\_\_\_ prior to procedure.

Procedure explained

Written instructions given to patient.

Rx given: Valtrex Diflucan Clinda Valium Demerol Phenegran Arnica

Other: \_\_\_\_\_

\_\_\_ Patient has been shown before and after pictures \_\_\_ Patient has a make-up consult scheduled

\_\_\_ Patient has a ride home someone to stay for the day of the procedure to assist with aftercare

\_\_\_ Patient understands all RBAC, and understands what side effects or complications to call about

Provider signature \_\_\_\_\_ Date \_\_\_\_\_

# DOCTOR SKIN

## COSMETIC LASER AND AESTHETICS CENTER

### Active/Total Fx CO2 Facial Resurfacing Treatment Record

Patient Name \_\_\_\_\_ Date \_\_\_\_\_

Fitzpatrick skin Type:

- I Always burns, never tans
- II Always burns, sometimes tans
- III Sometimes burns, always tans
- IV Rarely burns, always tans
- V Brown, moderately pigmented skin (Hispanic)
- VI Black skin

Safety:  Door secured with Laser Warning  Consent Signed  Eye protection

Image Performed  Pre-Procedure Pictures Taken  Ride home and can stay

Anesthesia used  Topical (15/5/P)  Demerol  Valium 5 mg  cc 1% Lido c Epi

Area Treated:  Face  Light Neck (feathered)  Full Neck  Chest

Deep FX: Area \_\_\_\_\_ E \_\_\_\_\_ P \_\_\_\_\_ D \_\_\_\_\_ Area \_\_\_\_\_ E \_\_\_\_\_ P \_\_\_\_\_ D \_\_\_\_\_

Variables: Area \_\_\_\_\_ Energy \_\_\_\_\_ Hz/Freq \_\_\_\_\_ Auto Rep Rate \_\_\_\_\_

Spot Shape \_\_\_\_\_ Spot Size \_\_\_\_\_ Density \_\_\_\_\_

Area \_\_\_\_\_ Energy \_\_\_\_\_ Hz/Freq \_\_\_\_\_ Auto Rep Rate \_\_\_\_\_

Spot Shape \_\_\_\_\_ Spot Size \_\_\_\_\_ Density \_\_\_\_\_

Area \_\_\_\_\_ Energy \_\_\_\_\_ Hz/Freq \_\_\_\_\_ Auto Rep Rate \_\_\_\_\_

Spot Shape \_\_\_\_\_ Spot Size \_\_\_\_\_ Density \_\_\_\_\_

Post Procedure Assessment:

Erythema  Edema Resultant skin condition \_\_\_\_\_

Post Care:  Ice/Frozen Peas  Elta Laser  SM Ointment  Avene  Other \_\_\_\_\_

General Remarks and Tolerance of Procedure \_\_\_\_\_

Instructions Given:  Verbal  Standard Ins Sheet Follow-up:  1-3 days Other \_\_\_\_\_

Patient Satisfied  Yes  No  Discussed signs of problem Patient should call about

Signature of Physician \_\_\_\_\_ Date \_\_\_\_\_