

User Manual CoolSculpting[®] Elite System



ZELTIQ Aesthetics, Inc. 4410 Rosewood Drive Pleasanton, CA 94588 USA www.coolsculpting.com

ZELTIQ[®] Customer Service 1-866-653-9308 Ext. 3

CoolSculpting Support Email: coolsculptingsupportca@allergan.com



Intellectual Property

© 2024 AbbVie. All rights reserved. COOLSCULPTING, COOLSCULPTING ELITE, and the Snowflake Design are trademarks of Zeltiq Aesthetics, Inc., an AbbVie company, used under license by AbbVie Corporation.

Table of Contents

Intellectual Property	ii
Customer Service	vi
Routine Issues	vi
Urgent Issues	vi
Foreword	vii
Intended Use	vii
Contraindications	viii
Warnings	viii
Precautions	xi
Adverse Events	xi
Freeze Detect [®] System	xiii
User Documentation	xiii
System Overview	1
Control Unit	1
Touchscreen Display	2
Card Slot	2
Casters with Locks	2
Bucket	2
Access Panel	
Power Receptacle and Power Switch	
Power Cord Clamp	
Soft Power Button	
Applicator Connectors	5
Vents	5
Applicators	5
User Interface	7
Screen Elements	7
Treatment Status	7
Audible Tones	
Supplies	
Treatment	

Profiles, Treatments, and Cards	12
Treatment Procedure	12
After a Treatment	23
Canceling a Treatment	24
Treatment Stopped by System	25
System Tools	
Controls for System Tools	
System and Card Log Screens	
Service Screens	29
Vacuum	29
Chiller	29
Modem	30
Settings Menu	30
Notifications	30
Time Zone	31
Date and Time	31
Language	32
Icon Control	32
About	32
System Messages	
Cleaning and Maintenance	
Cleaning	36
Approved Products	36
Cleaning Guidelines	36
Cleaning the Touchscreen	36
Cleaning the Bucket	37
Maintenance	37
Service Life	37
Filter Replacement	37
System Symbols	
System Specifications	
Electrical Safety	42
Fuses	42

46
46
47
48
48
49
50
50
50
51
51
51
51
52
53
53
54
55
55
56
57
59
61

Customer Service

To report issues with the performance or use of your System, contact ZELTIQ[®] Customer Service:

- 1-866-653-9308 Ext. 3
- CoolSculpting Support Email: coolsculptingsupport-ca@allergan.com

Note: The CoolSculpting Elite System is to only be serviced by authorized or certified personnel.

Routine Issues

For questions regarding device performance or to report issues that do not interfere with current patient treatments:

• Calls are answered in the order received.

Urgent Issues

To report safety concerns or issues that interfere with current patient treatments:

- Call at any time.
- If you call outside of regular business hours, leave a voicemail. A technician will be paged and will return your call promptly.
- **Note:** The Software Release within your system is located within the lower left-hand corner of the screen. This information is also available within the system tools screen (refer to About screen)



Example: Location of Software Release information

Foreword

The CoolSculpting[®] Elite System is a skin cooling device. The system comprises of a control unit, Applicators, and supplies such as cards, CoolAdhesive Gelpads, Liners, Foam borders, and Comfort Straps. The patient-applied parts are the Applicators, CoolAdhesive Gelpads, Liners, Foam borders, and Comfort Straps. Alcohol Wipes are provided by the end user.

During a treatment, the operator applies a CoolAdhesive Gelpad and applicator to the patient's skin. For a treatment where two applicators are used simultaneously, a second applicator is applied with another CoolAdhesive Gelpad. The vacuum applicator(s) draws tissue into the applicator cup(s) and holds the tissue against the cooling surfaces of the applicator(s). The operator then starts the treatment.

The Surface Applicators do not use vacuum pressure or draw in tissue since they do not have a cup. During the cooling cycle, sensors in the cooling surfaces of the applicator(s) monitor the skin surface and provide feedback that controls the rate of heat flux. The CoolAdhesive Gelpad(s) protects the skin by providing thermal coupling at the interface between the cooling surfaces of the applicator(s) and the skin. The card provides treatments and profiles for use with the system.

Note: Simultaneous CoolSculpting[®] Elite treatment is to use Applicator A and Applicator B at the same time during treatment.

Intended Use

The CoolSculpting® Elite System is a skin cooling device. Table 1 lists the intended uses.

appearance of lax tissue in the submental area.

Intended Use	
The <i>CoolSculpting</i> [®] <i>Elite System</i> is a non-invasive thermoelectric cooling device that ap to a treatment site on the patient's skin.	pplies controlled cooling

Cooling	 Indicated for cold-assisted lipolysis (breakdown of fat) of the upper arm, bra fat, back fat, banana roll, thigh, abdomen and flank, or "love handles" in individuals with a Body Mass Index (BMI) of 30 or less.
	 Intended for cold-assisted lipolysis of the submental and submandibular areas in individuals with a BMI up to 46.2.
	 Intended to affect the appearance of visible fat bulges in the upper arm, bra fat, back fat, banana roll, submental and submandibular areas, thigh, abdomen, and flank.
	• When used for cold-assisted lipolysis of the submental area, the device can also affect the

Contraindications

The use of CoolSculpting Elite is contraindicated in patients who have:

- Age < 18;
- Cryoglobulinemia, a condition where a high level of cryoglobulins (proteins which thicken in cold temperature) are in the blood;
- Cold agglutinin disease, an autoimmune disease in which exposure of blood to cold temperatures leads to red blood cell death;
- Paroxysmal cold hemoglobinuria, a blood disorder in which a change from cold to warm temperatures leads to the death of red blood cells;
- Hernia on or near to the treatment site;
- Active implanted devices, such as pacemakers and defibrillators;
- Areas of impaired peripheral circulation;
- Pregnancy and lactation.

Use of the CoolSculpting Elite for lipolysis should not include areas of the body with a subcutaneous fat layer thickness of less than 1 cm.

Warnings



Unauthorized modification or repair of the control unit, its components, or supplies may result in unsafe conditions and/or impaired performance. No modification of this equipment is allowed without express authorization from ZELTIQ[®]. Any unauthorized modification or repair will void the warranty.



The use of the CoolSculpting[®] Elite system has not been studied in children, those who are pregnant or lactating, or in patients with:

- Known sensitivity to cold such as cold urticaria, Raynaud's disease, or Chilblains (pernio);
- Known sensitivity or allergy to fructose, glycerin, isopropyl alcohol, or propylene glycol. Use in these patients may result in allergic reactions, including anaphylaxis;
- Impaired peripheral circulation in the area to be treated;
- Neuropathic disorders such as post-herpetic neuralgia or diabetic neuropathy;
- Impaired skin sensation;
- Open or infected wounds;
- Bleeding disorders or concomitant use of blood thinners. Use in these patients may increase the risk of bleeding;
- Recent surgery or scar tissue in the area to be treated. Use in these patients may increase the risk of wound separation or rupture;
- Skin conditions such as eczema, dermatitis, or rashes in the area to be treated



The effect of performing a CoolSculpting[®] Elite treatment with a vacuum applicator on a patient who has a hernia on or near the treatment site has not been studied. The applicator uses vacuum pressure to draw tissue into the applicator cup during the treatment. The vacuum pressure may therefore apply pressure on a pre-existing hernia or pre-existing structurally weak area such as a surgical scar. Treatment may cause new hernia formation or exacerbate a pre-existing hernia, which can require surgical repair. Physicians should examine that patient for evidence of pre-existing abdominal or femoral hernia prior to use of the device.



The system operates at temperatures below 0°C, which can freeze tissue; clinical events that are common to freezing tissue should be considered.



The use of this device on areas with superficially located nerve branches, arteries, or veins has not been demonstrated to be safe and effective. Such use may result in injury to the patient.



Avoid treatments near/over implants, such as pacemakers, defibrillators, breast or buttock implants.



Patients with chronic pain, sensitivity to cold, or an anxiety disorder may be more prone to pain or discomfort during the treatment.



Do not use the CoolSculpting[®] Elite on areas with a subcutaneous fat layer thickness of less than 1cm.



Do not use the CoolSculpting® Elite on areas of decreased sensation or perfusion.



Do not use the CoolSculpting[®] Elite on areas with minimal underlying muscle mass or on areas with superficially located nerve branches, arteries, or veins.



Do not use the CoolSculpting[®] Elite on the face, head, genitalia, inguinal creases, axillae, popliteal fossae, antecubital fossae, hands, or feet.



To avoid risk of electric shock, this equipment must only be connected to a supply mains with protective earth.

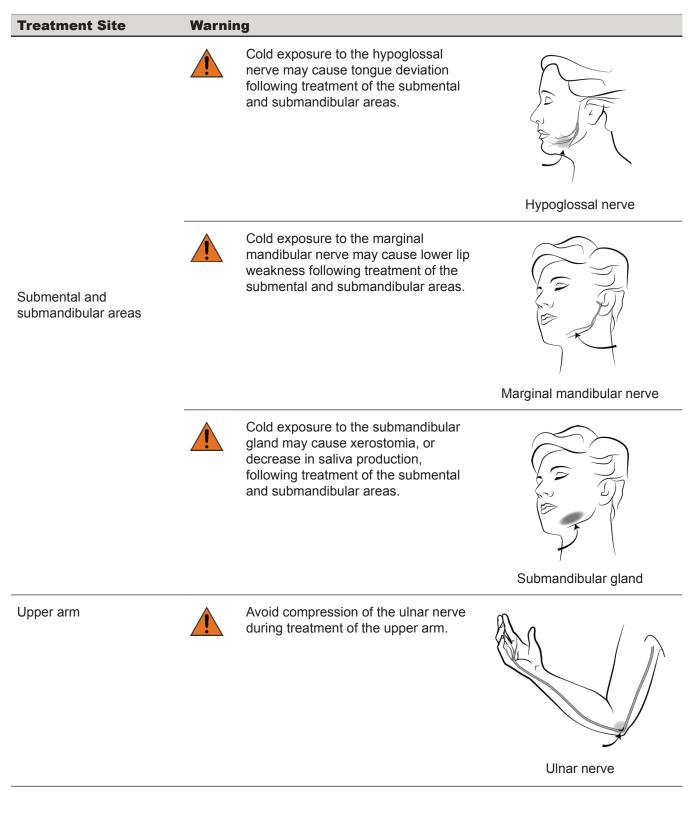


The use of other electronic medical devices on a patient who is undergoing a treatment might interfere with the correct functioning of the system, possibly resulting in injury to the patient. Do not use other electronic medical devices on a patient who is undergoing a treatment.



Before using the system, read and understand the additional Warnings that are specific to a treatment site list in Table 2 on the following page.

Table 2: Warnings for Specific Treatment Sites



Precautions



The system is intended for use by a trained physician or an authorized medical health care professional in accordance with local applicable regulation.



If the operator observes a potential safety issue or operational abnormality during use, the operator should stop the treatment immediately and contact ZELTIQ[®] Customer Service (see page vi).



The use of other equipment and supplies with the system has not been tested and may cause unexpected results.

Adverse Events

Table 3 lists common adverse events that can occur in the treatment area during and after a treatment. These effects are temporary and generally resolve within days or weeks. There is currently limited data on the short- or long-term effects of the simultaneous use of applicators on the same patient and the development of Paradoxical Hyperplasia or other adverse events that were not observed in company-sponsored studies. Please review the scientific literature summary of paradoxical hyperplasia and other information under Appendix D - Summary of Clinical Study Publications.

When Occurs	Common Side Effects
During a treatment	 Sensations of pulling, tugging, and mild pinching at treatment site Intense cold, tingling, stinging, aching, cramping, and discomfort Note: These sensations subside as the area becomes numb.
Immediately after a treatment	 Redness and firmness Transient blanching and/or mild bruising around the edges of the treatment area Tingling and stinging Skin inflammation Throat discomfort/soreness after submental treatment
One to two weeks after a treatment	 Redness, mild to moderate bruising (in rare instances can be severe), and swelling Tenderness, cramping, and aching Itching, skin sensitivity, tingling, and numbness Note: Sensory alteration can persist up to several weeks after treatment. Sensation of fullness in the back of the throat after submental area treatment

Table 3: Common Adverse Events

Event	Description	
Paradoxical hyperplasia	Visibly enlarged tissue volume within the treatment area, which may develop two to five months after treatment. Surgical intervention may be required.	
Late-onset pain	Late-onset pain may begin several days after a treatment and usually resolves within several weeks.	
Headache/Occipital pain	Patients may experience headache/occipital pain relating to device noise/posture during treatment.	
Severe pain	Patients may experience pain of varying severity, which more commonly can be described as mild to moderate, and in rare instances, can be severe.	
Freeze burn	Patients may experience freeze burns which typically resolve with proper care. Very rarely, second and third-degree burns may occur	
Vasovagal symptoms	Dizziness, lightheadedness, nausea, flushing, sweating, or fainting might occur during or immediately after the treatment.	
Subcutaneous induration	Generalized hardness and/or discrete nodules within the treatment area can develop after the treatment and might present with pain and/or discomfort.	
Hyperpigmentation / Hypopigmentation	Hyperpigmentation / Hypopigmentation can occur after treatment and usually resolves spontaneously.	
Hernia	Treatment may cause new hernia formation or exacerbate a pre-existing hernia, which can require surgical repair.	
Treatment area demarcation	An aesthetic outcome of treatment in which the patient experiences excessive fat removal in the treatment area, resulting in a visible disruption to the continuous contour of fat, or unwanted indentation in the treated area.	
Cold panniculitis	Cold panniculitis results from injury to adipose tissue exposed to cold and may result in a mild to severe inflammatory response. In mild cases, the symptoms are self-resolving and may include redness, swelling, skin nodules, warmth, tenderness, and possible low-grade fever. These cases typically resolve without long-term sequelae. In more severe cases, an intense inflammatory response may result in more extensive tissue damage, including fat necrosis, which may require medical or surgical intervention.	

Freeze Detect® System

The system operates at temperatures below 0°C, which can freeze tissue. Therefore, the system monitors tissue during cooling and employs multiple safety features including the Freeze Detect[®] system, to minimize the risk of damage to tissue. Despite these measures, on rare occasions, the Freeze Detect[®] system can detect a possible freeze condition. When Thermal event alert message (Z409 message) occurs, it is a result of the Freeze Detect[®] system.

The Freeze Detect[®] system is comprised of several features, including thermal sensors and proprietary algorithmic software. Freeze Detect[®] is an integral part of the CoolSculpting[®] Elite System and is automatically employed when a treatment is initiated.



When the Freeze Detect[®] system detects a possible freeze condition, it stops the treatment cycle and displays a Thermal Event alert message (Z409 message). If you receive this message, stop treatment, remove the applicator and CoolAdhesive Gelpad, and assess the tissue. Do not retreat for at least 24 hours. Failure to follow instructions could result in injury to the patient, including burns and resulting complications such as hypopigmentation / hyperpigmentation.

User Documentation

Before using the system, read and understand the user documentation. Table 5 lists the types of user documentation provided with the CoolSculpting[®] Elite System.

- **Note:** All images in ZELTIQ[®] user documentation are sample images. Your hardware and information on the system screen may differ from those depicted in the documentation.
- **Note:** ZELTIQ[®] reserves the right to modify the content of the user documentation at any time. Retain the most current user documentation and always review it prior to using any component of the system.

Item Description			
User Manual	Provides detailed information on the components of the system, lists contraindications and side effects, and describes how to perform treatments, troubleshooting, cleaning, and maintenance.		

Table 5: Type of User Documentation

CHAPTER 1

System Overview

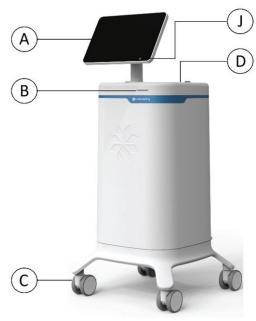
This chapter describes the control unit, the applicators, and supplies such as the Treatment Card, CoolAdhesive Gelpad, Gel Trap, Comfort Strap, Liner, and Foam borders.

The CoolSculpting[®] Elite System should be used in a clinical environment equipped with a treatment table or chair for patient comfort during treatment.

The CoolSculpting[®] treatment environment should allow the user to hear any audible tones on the system.

Control Unit

The control unit (Figure 1) is a portable device that is used to start, stop, and monitor treatments.



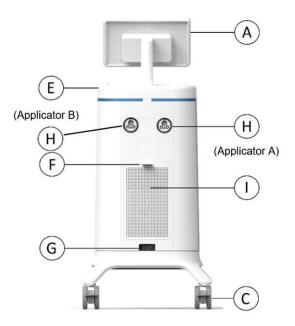


Figure 1: Control Unit

- A: Touchscreen display
- B: Card slot
- C: Casters with locks
- D: Bucket
- E: Top cap lip
- F: Access panel
- G: Power receptacle and power switch
- H: Connector Ports for umbilical cords for Applicators A and B
- I: Vents
- J: Soft power button

Touchscreen Display

The touchscreen displays system controls, information about the status of the system, information about the treatment, and messages for the operator. You can rotate or tilt the display to accommodate better access.

Card Slot

The card slot accepts treatment cards. You must insert an appropriate treatment card with active credits in order to begin a treatment.

Casters with Locks

The control unit has four casters that swivel. Each caster has a lock. Always engage all four caster locks when the unit is stationary. Disengage the caster locks to move the unit.

- **To engage the caster locks:** Press down on the locking lever with the toe of your shoe.
- **To release the caster locks:** Pull up on the locking lever with the toe of your shoe.

► To move the control unit:

- 1. Power off the control unit.
- 2. Unplug the Power Cord from the wall outlet and place it in the bucket of the control unit.
- 3. Release the lock on each caster.
- 4. Push or pull the lip of the top cap to move the control unit to the new location.

Note: Do not push or pull on the touchscreen display or the display post to move the unit.

5. When you have placed the control unit in its new location, engage the lock on each of the four casters.



While moving the system within the office, place the applicator in the bucket provided on top of the control unit. In addition, grasp the top cap lip of the system to guide the unit from one location to another.

Bucket

The bucket is a storage area for applicators and/or consumables. You can remove the bucket from the control unit for cleaning.



Figure 2: Image of the top the system that shows the bucket

Access Panel

The access panel covers Vents, a USB port, and the chiller tank cap (Figure 3):

- **Vents:** Vents provide airflow that reduces heat build-up inside the control unit. Ensure that all Vents are free from obstructions when the control unit is in operation.
- **USB port:** The USB port (rectangular) is intended for use with approved software and hardware provided by ZELTIQ[®].



Chiller tank cap: The cap is for covering the coolant tank. A service technician is required to add coolant to the system. Please contact customer service. Contact details are on page vi.

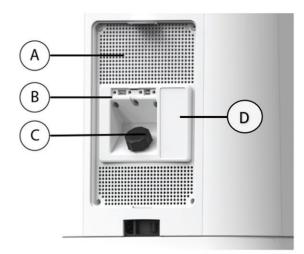


Figure 3: Rear of control unit with access panel removed

- A: Vents
- B: USB port (rectangular)
- C: Chiller tank cap;
- D: Location of Product code and Serial Number
- To remove the access panel: Gently pull the tab at the top of the door toward you to disengage the magnetic seal; then lift off the entire panel.
- ► To replace the access panel: Align the access panel with the recess and hold it close to the control unit until the magnets snap it into place.

Power Receptacle and Power Switch



Do not use the Control Unit if the Power Switch, Power Cord and/or Power Receptacle become damaged. If the Power Switch and/or Power Receptacle appears to be damaged, contact Customer Service as listed in page vi of this User Manual.

Power Cord Clamp

The Power Cord Clamp attaches the Power Cord to the rear of the control unit, and it acts as a strain relief to protect the Power Receptacle if the cord is pulled. Install the Power Cord Clamp before using the system. If the Power Cord is dislodged during a treatment, the treatment will end abruptly.

► To install the Power Cord Clamp:

- 1. On the back of the control unit, insert the thumbscrew into the hole onto the base.
- 2. Using your fingers, turn the thumbscrew until it is snug. See illustration below.



Example: Power Cord Clamp installed in base

• To power on the control unit:

- 1. Insert one end of the Power Cord into the power receptacle.
- 2. Insert the other end of the Power Cord into a grounded wall outlet.



To minimize the risk of electric shock, connect this equipment to a grounded electrical outlet.

 Press the power switch on the back of the control unit to the "On" position (Figure 4). The control unit powers on and illuminates the soft power button (Figure 5).

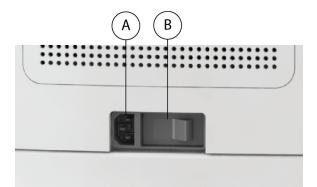


Figure 4: Close-up of power receptacle and power switch

A: Power receptacle

B: Power switch (current position is "Off", which is the "0". The "On" has a "1")

- ► To power off the control unit:
 - 1. Press the power switch on the back of the control unit to the "Off" position.
 - 2. Unplug the Power Cord from the wall outlet.
 - 3. Unplug the Power Cord from the power receptacle on the rear of the control unit.

Soft Power Button

The display includes a soft power button at the lower right corner, which is used to power on the system, after turning the power switch on the rear of the system to the "On" position. The soft power button should also be used to power off the system.

When the system is in standby or sleep mode, the power button is illuminated and will pulse. This indicates that the system is asleep. Pressing the button will awaken the system.

• To power on the control unit:

1. While the power switch is "On" and the system is off, press the soft power button on the display.

• To power off the control unit:

- 1. While the power switch is "On" and the system is on, press the soft power button on the display
- 2. A pop-up message will be displayed asking "Are you sure you want to power off the device?"
- 3. Select "Yes"



Figure 5: Soft Power Button

Applicator Connectors

The control unit has two connector ports where two umbilical cords attach to perform a simultaneous treatment. Simultaneous treatment is an option, but not necessary.

Vents



Vents provide airflow that reduces heat build-up inside the control unit. Ensure that all vents are free from obstructions when the control unit is in operation.

Applicators

The applicator delivers controlled cooling and heating to the treatment site.

The applicator consists of the applicator connector, the applicator umbilical, and the applicator head. The applicator is used with supplies provided by ZELTIQ[®].

The handpiece of the applicators can be disconnected from the umbilical, except for the C80 and the Surface Applicators, which are used with standalone umbilicals.



Always use CoolAdhesive Gelpads with the applicator as instructed in this document.

The applicators are designed to treat most body areas. There are different applicators supplied with the system (Table 6: Applicators supplied with CoolSculpting[®] Elite System). Clinicians should consider all physical aspects of the area to be treated and use the applicator that will fit best for each patient.

Applicator	Total Cooling Area (cm²)	Recommended Treatment Sites	Profile Temp. Range	Profile Duration Range
CoolSculpting Curve 80 (C80™)	35	Small areas with pinchable fat, such as the submental and submandibular areas	Down to -11°C	45 minutes
CoolSculpting Curve 120 (C120™)	84	Areas with pinchable fat, such as the flanks, abdomen, banana roll, back fat, and bra fat	Down to -11°C	35 minutes
CoolSculpting Curve 150 (C150™)	133	Areas with pinchable fat, such as the flanks and abdomen	Down to -11°C	35 minutes
CoolSculpting Curve 240 (C240™)	225	Large areas with pinchable fat, such as the flanks and abdomen	Down to -11°C	45 minutes
CoolSculpting Flat 125 (F125™)	83	Vertical bulges of pinchable fat, such as the inner thigh and upper arm*	Down to -11°C	35 minutes
CoolSculpting Flat 165 (F165™)	96	Vertical bulges of pinchable fat, such as the inner thigh and upper arm*	Down to -11°C	35 minutes

Applicator	Total Cooling Area (cm²)	Recommended Treatment Sites	Profile Temp. Range	Profile Duration Range
CoolSculpting Surface 150 (S150™)	134	Areas with non-pinchable fat, such as the lateral thigh and upper abdomen	Down to -13°C	75 minutes

User Interface

A treatment involves a mix of physical setup at the control unit, interactions with the patient, and interactions with the system software via the touchscreen. The system guides you through these transitions with a series of prompts, cues, and feedback as you progress through the treatment procedure.

Screen Elements

When interacting with the touchscreen, tap a button or other element to select it.

Treatment Status

During a treatment, the screen displays status information to help you monitor progress (Refer to Figure 6).

As soon as a treatment begins, the status changes to "Treating" and the system begins counting down from the total scheduled time. The remaining time is displayed in large numbers within a "clock" graphic. A blue indicator bar recedes clockwise from the 12:00 position as the treatment progresses.

The treatment temperature, total scheduled treatment time, and the vacuum status for vacuum applicators are displayed above the remaining time.

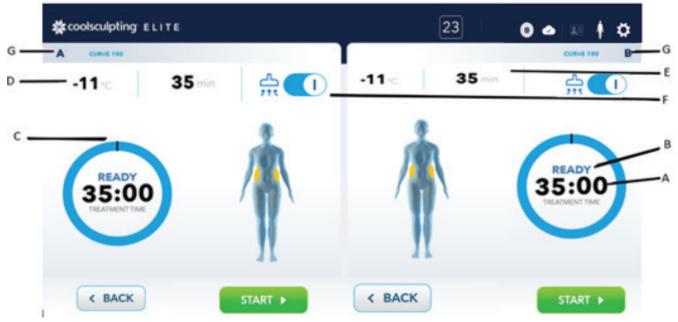


Figure 6: Example of status information displayed prior to starting a treatment

- A: Treatment time remaining
- B: System status
- C: Visual indicator of remaining time
- D: Treatment temperature this is the programmed temperature based on the selected Applicator, which is displayed before and after treatment E: Duration of treatment
- F: Vacuum status (on or off) for vacuum applicators
- G: Applicators A and B
- **Note:** The vacuum icon for vacuum applicators in the upper right corner of the treatment screens may differ with the software version.

Audible Tones

The system provides audible feedback. The control unit beeps:

- When the operator presses a button on the screen
- When a treatment begins
- When the system detects an error
- When a treatment ends
- When a Patient Call Button is activated
- When the massage timer ends

Supplies

To order supplies for your CoolSculpting® Elite System, contact Customer Service (see page vi).

Table	7:	Supplies
IUNIO	•••	Cappiloo

Item	Description
<u>Treatment Card</u>	 Provides treatments and profiles for use with the system: Profiles define the number of timed segments of cooling and heating. Each cycle provides a single treatment. The card is considered an active device that is inserted in the System when starting treatment. The card uses software to provide users with the treatment parameters (temperature and time) with which to conduct treatments.
Filter	The purpose of this filter is to extend the service life of your control unit. Refer to the Maintenance section for filter replacement instructions.

Item	Descri	ption	
<u>Alcohol Skin</u> <u>Wipe</u>	Using alcohol on a soft wipe or cloth or an alcohol skin wipe packet, clean the treatment area to remove any lotions or oils prior to marking treatment area or applying gelpad. Note: Alcohol wipes are not supplied by the manufacturer but required for treatment.		
<u>CoolAdhesive</u> <u>Gelpad</u>	2	Provides thermal contact between the applicator and the patient's skin; mitigates minor variances in device-to-skin contact.	
	<u>.</u>	The CoolAdhesive Gelpad is designed for single use only. Reuse of a CoolAdhesive Gelpad may result in tissue injury. Use a new CoolAdhesive Gelpad each time you place the applicator on a treatment site. Ensure the CoolAdhesive Gelpad is the appropriate size for the applicator.	
	<u>.</u>	If a CoolAdhesive Gelpad package shows signs of damage, such as leakage, do not use the CoolAdhesive Gelpad.	
	<u>`</u>	Store CoolAdhesive Gelpads flat and at room temperature.	
	<u>.</u>	Use a new CoolAdhesive Gelpad for each treatment site. Do not reuse CoolAdhesive Gelpads.	
	<u>,</u>	Used CoolAdhesive Gelpads are considered medical waste. Dispose of used CoolAdhesive Gelpads according to your site's medical waste protocol.	
Gel Trap	Fits into the slot of the vacuum applicator; prevents the ingress of gel into the vacuum system.		
	<u>.</u>	Use a new Gel Trap for each treatment site. Do not reuse Gel Traps.	
	<u>!</u>	Used Gel Traps are considered medical waste. Dispose of used Gel Traps according to your site's medical waste protocol.	
		Refer to Chapter 2 Treatment in this User Manual.	

Item	Descri	ption			
Foam Borders		Foam Borders minimize movement of the surface applicator during treatment. The Foam Borders are for the Surface Applicator only.			
	<u>!</u>	Some individuals may be sensitive to crosslinked ethyl vinyl acetate (EVA) foam or 3M Double Coated Medical Tape. If a rash develops, discontinue use and contact a physician.			
		To apply Foam borders for the Surface Applicator:			
		 Clean the treatment site with an Alcohol Wipe. Then apply treatment markings. a. Alcohol cleans the skin and helps remove any oils or lotion. Foam borders are applied after Alcohol Wipe. Remove the backing from one pair of Foam borders. Apply one pair of Foam borders around the treatment site. Wipe the treatment site with an Alcohol Skin Wipe for 60 seconds before applying a CoolAdhesive Gelpad. Apply a CoolAdhesive Gelpad to the treatment site. Repeat above steps for the other Foam borders for dual treatment using the Surface Applicator. Use new Foam borders are considered medical waste. Dispose of used Foam 			
	<u>/!</u>	borders according to your site's medical waste protocol.			
Liner 🛞		er is disposable and provides an interface between the CoolAdhesive Gelpad blicator. The Liner is for the Surface Applicator only.			
Used Liners are considered medical waste. Dispose of used Liners according to your site's medical waste protocol. Use a new Liner for each treatment site. Do not reuse Liners.					
To apply a Liner for the Surface Applicator:					
 Center the Liner ove Gelpad. 	er the Co	olAdhesive			
 Press the Liner onto Gelpad. 	the Coo				
3. Working from gently smooth					

Applicator Securement

eliminate any wrinkles or bubbles.

Minimizes movement of the applicator during treatment. This includes Securement Grips, Comfort Straps, and Hook Tabs.

5.

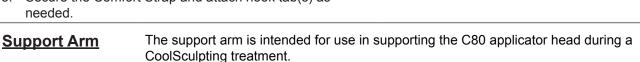
Description

Securement Grip application for the Surface Applicator:

- 1. Attach the Surface Applicator Securement Grip onto the Surface Applicator.
- 2. Position the Comfort Strap.

Item

- 3. With the Surface Securement Grip attached to the applicator, place the applicator over the desired treatment area within the Foam borders. Ensure that the CoolAdhesive Gelpad and Liner extend beyond the outside edges of the Foam borders.
- 4. Wrap the Comfort Strap around the applicator and attach to the Securement Grip.
- 5. Secure the Comfort Strap and attach hook tab(s) as needed.



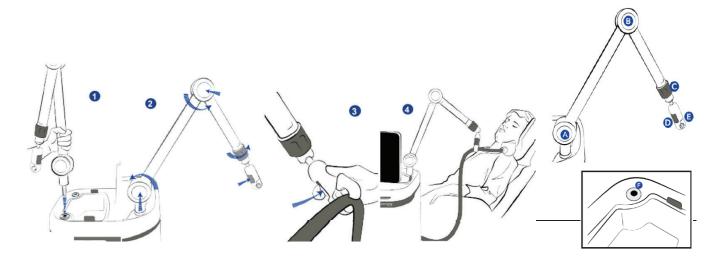
To Set up the Arm

- 1. Insert the arm into the support arm mount.
- 2. Extend the arm to desired height and angle, while pressing down joint buttons.
- 3. Press the Clamp button to place the applicator umbilical cord inside the clamp.
- 4. Adjust the arm to desired position.

- A: Base Joint Button
- B: Mid Joint Button
- C: Ball Joint Knob
- D: Clamp Button
- E: Clamp

1.

F: Support Arm Mount



CHAPTER 2

Treatment

A treatment is composed of timed segments of cooling and heating. Each treatment is based on a profile, which is contained on the card.

Profiles, Treatments, and Cards

The profile defines the temperature and duration of a treatment. Table 8 lists the elements of a treatment profile.

A cycle is an individual instance of a treatment; that is, the application of one profile to one patient.

Each card contains a set number of treatments and a list of profiles. When all the treatments have been used, the card expires.

Table 8: Elements of a Treatment Profile

Element	Units	Description
Temperature	°C	The treatment temperature
Time	minutes	The duration of the treatment

Treatment Procedure

1. Set up the Control Unit

- a. Position the control unit next to the bed or chair that will be used for the treatment. Position the control unit within the treatment room so that it is not difficult to disconnect the power cord from the power receptacle of the control unit.
- **Note:** Ensure that the Vents have enough clearance for adequate ventilation and that the operator can access the power switch easily.



The Control Unit contains coolant and should not be operated/transported on its back as the coolant may leak.

- b. Insert one end of the Power Cord into the power receptacle on the back of the control unit.
- c. Plug the other end of the Power Cord into a grounded outlet.



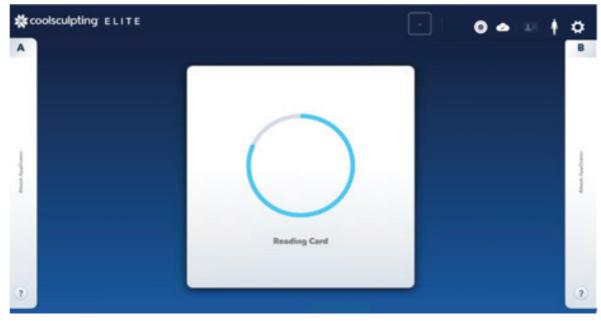
To minimize the risk of electric shock, connect this equipment to a grounded electrical outlet.

d. Engage the lock on each of the four casters.

2. Set up the System Displays on Touchscreen

Materials required:

- Treatment Card
- Applicator(s)
- a. Power on the control unit and wait for the touchscreen to display the "Insert Card" prompt in the middle of the screen. This prompt appears when no card is inserted. Treatment cannot start unless the card is inserted and authenticated.
- b. Insert card into the slot on the control unit and wait a moment while the card authenticates. Screen should display "Reading Card."



Example: Reading Card Screen

- **Note:** The card can be removed after treatment has started without affecting the ongoing treatment. In this case, a smaller card prompt will appear if only one Applicator has started treatment. If both Applicators A and B have started treatment, then no card prompt will be displayed.
- **Note:** The system displays the number of treatments remaining on the card in the top right area of the screen.
- **Note:** If the system displays an error associated with the card (for example, an expired or incompatible card), find the message code in Table 11 and follow the recommended actions.
 - c. When the system detects that the card is authenticated, tap **OK**. The next prompt is "Attach Applicator A or B."

Treatment

3. Connecting the Applicators to the System

The CoolSculpting[®] Elite System consists of Applicator Connector Ports (A and B), which operate independent of each other. There is an option of attaching either Applicator A or B or both applicators.

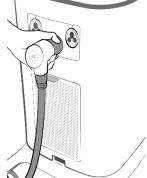
For C120, C150, C240, F125, and F165 Applicators: Remove the cap and connect the applicator to the umbilical. The cap covers the connector of the applicator that connects to the umbilical.

For C80 and Surface Applicators: The C80 and Surface Applicators do not detach from the umbilical.

Plug the umbilical(s) into the connector port(s) on the back of the control unit and rotate the collar clockwise until the indicator marking(s) line up with the lock symbol. The Applicator Authenticating screen appears.



- **Note:** The user has the option of using Applicator A, B, or both. For a simultaneous CoolSculpting[®] Elite treatment, it is recommended to set up one applicator at a time (either Applicator A or B) until ready to start treatment, before setting up the second applicator. The workflow in this section focuses on setting up Applicator A (instructs to tap "Next").
- a. When the card authentication completes, the Patient Properties screen appears.
- b. On the "Enter Patient Properties" screen, there are three properties that the user will have to select:
 - i. The patient's Gender (female or male)
 - ii. Is the patient new to your practice? (Yes or No)
 - iii. How many CoolSculpting treatments have been performed for this patient? (0 to 12+)
- Note: Treatments refer to the cycles that the patient has received.
- **Note:** If the user is unsure or cannot accurately assess how many treatments the patient has received, select 0.
- c. When this information is entered, tap Next. The Select Treatment Area screen appears.



4. Select Treatment Area Screen

a. Tap the green Setup below the applicator to select Treatment Area. On the Select Treatment Area screen, select the appropriate treatment area by tapping the location on the body.

The desired treatment area highlights bright yellow and remains highlighted.

Note: For cleared Intended Use, contraindications, and Warnings, see "Foreword." For Warnings related to specific treatment sites, see Table 2.



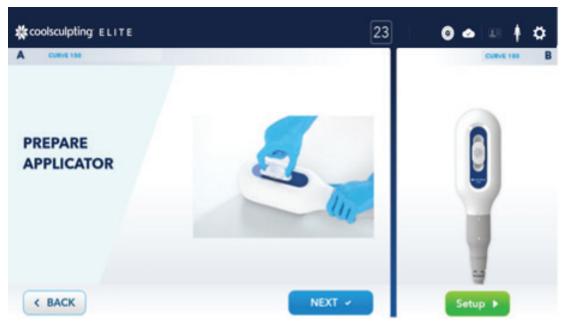
Example: Treatment area selected for Applicator A

- b. After you select the treatment area, tap Next.
- c. On the Treatment Profile screen, select a profile from the list; then tap Next.
- Note: The profile list displays applicator temperature and treatment duration.
- **Note:** When performing a simultaneous CoolSculpting[®] Elite treatment, using both Applicators A and B, ensure that there is at least a 2-minute window at the end of the treatment to allow for the recommended post-treatment manual massage. This applies if the duration of treatment for Applicators A and B are the same, and both Applicators A and B are used.

5. Prepare Applicator Screen – Gel Trap Insertion

Materials required:

- Gel Trap
 - a. After you tap Next, the prompt leads to a new screen for Applicator A to instruct the insertion of the Gel Trap on the back side of the applicator (for C120, C150, C240, F125, and F165). For the C80 applicator, the Gel Trap is to be inserted in the metal plate within the cooling cup. The Surface Applicator does not require the use of a Gel Trap.



Example: Insert Gel Trap on the back side of Applicator A



Example: Insert Gel Trap in metal plate on the front side of C80 Applicator

b. Tap Next. The next screen instructs to clean with Alcohol Skin Wipe and apply CoolAdhesive Gelpad.

6. Prepare the Patient Prompts

Materials required:

- CoolAdhesive Gelpad
- Alcohol Skin Wipe
- Alcohol wipe



Use CoolAdhesive Gelpads as instructed in this document. Failure to follow instructions may result in tissue injury.



The CoolAdhesive Gelpad is designed for single use only. Reuse of CoolAdhesive Gelpad may result in tissue injury.



If the CoolAdhesive Gelpad package shows signs of damage, such as leakage, do not use the CoolAdhesive Gelpad.

Inspect the treatment site to ensure that the skin is intact. Treat over intact skin only.

Remove jewelry that is on or directly adjacent to the treatment site.



For Vacuum Applicators: Clean the treatment site with an Alcohol Wipe prior to placing the treatment markings.

Alcohol cleans the skin and helps remove any oils or lotion. Place treatment markings after cleaning with the Alcohol Wipe. Then, use an Alcohol Skin Wipe to prepare the treatment site before applying a CoolAdhesive Gelpad. Clean the treatment site with an Alcohol Skin Wipe for 60 seconds after cleaning with an Alcohol Wipe and placing treatment markings.



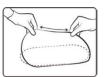
For Surface Applicators: Clean the treatment site with an Alcohol Wipe prior to treatment markings and applying Foam borders.

Alcohol cleans the skin and helps remove any oils or lotion. Place treatment markings and apply the Foam borders after cleaning with the Alcohol wipe. Then, use Alcohol Skin Wipe to prepare the treatment site before applying a CoolAdhesive Gelpad and Liner.

Clean the treatment area with a Alcohol Skin Wipe for 60 seconds after the initial cleaning with alcohol wipe and the placing treatment markings.

Note: Please ensure that the patient is positioned appropriately for the treatment and check if the treatment markings are aligned. Please remark the area once the patient is positioned for treatment if necessary.

- a. Open a CoolAdhesive Gelpad pack and remove the CoolAdhesive Gelpad.
 - **Note:** Gently grasp two corners on a long side of the CoolAdhesive Gelpad and lift it off the package horizontally.



Example: grasp two corners on long side of the CoolAdhesive Gelpad

b. Drape the CoolAdhesive Gelpad over the center of the treatment site. Ensure that the CoolAdhesive Gelpad is the correct size for the applicator.



Example: Apply CoolAdhesive Gelpad on area of treatment for Applicator A

c. Inspect the visible side of the CoolAdhesive Gelpad to ensure that it appears intact.

Use of a damaged CoolAdhesive Gelpad may result in tissue injury. If a CoolAdhesive Gelpad shows signs of damage, such as tearing, thin spots, or dryness, do not use it.

d. After applying the CoolAdhesive Gelpad, return to the touchscreen and tap Next.
 The screen showing placement of the applicator over the CoolAdhesive Gelpad appears.

7. Display Prompts for Applicators

For Vacuum Applicators

Note: This step focuses on starting a single applicator (i.e. Applicator A).



Example: Position Applicator over CoolAdhesive Gelpad

a. For vacuum applicators, turn on the vacuum by tapping vacuum icon in the upper right corner to toggle the button to the right or to 'on' position.

When you tap the vacuum ON, the prompt changes to vacuum image with the following text "Waiting for tissue draw."

The vacuum applicator will draw tissue into the applicator cup and hold tissue against the cooling surfaces of the applicator.

- i. With Applicator Securement in place, place the applicator over the center of the treatment site.
- ii. Inspect the CoolAdhesive Gelpad and applicator to ensure that the CoolAdhesive Gelpad extends beyond the borders of the applicator.
- iii. Wrap the Comfort Strap around the applicator.
- iv. Secure the Comfort Strap and attach the hook tab(s) as needed.



If the CoolAdhesive Gelpad slips and the cooling surfaces of the applicator come into contact with the patient's skin, tissue injury may result.

For Surface Applicators:

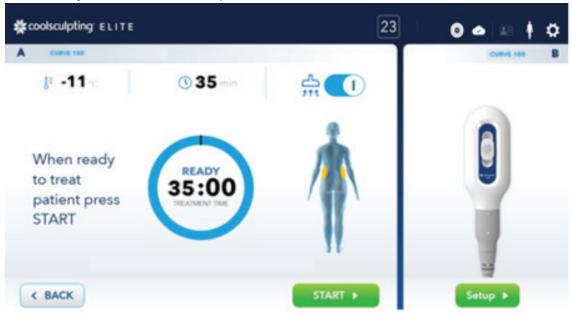
The Surface Applicators do not use vacuum pressure and it does not draw in tissue since it does not have a cooling cup.

- i. Plug the umbilical(s) into the connector port(s) on the control unit and rotate the collar clockwise until the indicator marking(s) line up with the lock symbol. The Surface Applicators do not require the use of a Gel Trap.
- ii. Once the Surface Applicator is authenticated, tap **Setup** on the applicator window.
- iii. Select the treatment area and tap Next to confirm the treatment profile (temperature and treatment time). Tap Next.

- iv. The next screen instructs to apply the Foam borders, clean with alcohol wipe/ Alcohol Skin Wipe, apply CoolAdhesive Gelpad, and place liner.
- a. Clean the treatment site with an alcohol wipe. Then apply treatment markings.
 - b. Place Foam borders around the treatment site.
 - i. Remove the backing from one pair of Foam borders and apply Foam borders around the treatment site.
 - ii. For dual treatment using the Surface Applicator, repeat above for another pair of Foam borders.
 - c. Wipe the treatment site with an Alcohol Skin wipe for 60 seconds.
 - d. Apply a CoolAdhesive Gelpad to the treatment site.
 - e. Place a Liner over the CoolAdhesive Gelpad.
- v. Once complete, tap **Next.** The screen will prompt to apply the applicator to the treatment area and secure the applicator.
 - a. With the Surface Applicator Securement Grip attached to the applicator, place the applicator over the desired treatment area within the Foam borders. Ensure that the CoolAdhesive Gelpad and Liner extend beyond the outside edges of the Foam borders.
 - b. Wrap the Comfort Strap around the applicator and attach it to the Securement Grip.
 - c. Secure the Comfort Strap and attach hook tab(s) as needed.
- **Note:** Refer to the Supplies section for directions for use for information on securing the applicator in place.

8. Start Treatment

- **Note:** If simultaneous treatment is desired, proceed "To perform a simultaneous treatment (i.e., to use Applicator B simultaneously during treatment)" step below.
- a. The next screen prompts treatment to start. After confirming that the CoolAdhesive Gelpad and applicator are positioned correctly, treatment can be started.
- b. When ready to start treatment, tap Start.



Example: Start treatment screen for Applicator A

- **Note:** Choose to start the applicator on either side A or side B first. Ensure to allow time for removal of the first applicator and CoolAdhesive Gelpad for the 2-minute recommended post-treatment manual massage on the first side before the second side.
- **Note:** Treatment can be started for Applicators A and B at the same time. Otherwise, only one applicator can be used, depending on the need. To perform a simultaneous treatment (i.e., To start Applicators A & B simultaneously) follow steps below:
 - a. At the touchscreen, tap treatment area on the body. The highlighted treatment area displays. Tap **Next.**



Example: Setting up Treatment for Applicator B

- b. Go to "Prepare the applicator" and repeat the procedure for Applicator B.
- c. When ready to start treatment, tap **START** button.

9. End the Treatment

Materials required:

- Towel or other absorbent material
- Wet or damp towel/gauze or water-based wipes
- Optional: Gauze soaked in isopropyl alcohol or equivalent wipes
- a. Place a towel or other absorbent material into the bucket on top of the control unit.
- b. Grasp the applicator to hold it in position; then tap the icon to the right of the vacuum button on the touchscreen to toggle the vacuum from ON to OFF. The Surface Applicators do not use the vacuum feature and can be removed by detaching the Comfort Strap.



When the vacuum is turned off, the applicator may disengage from the patient. The applicator could fall and be damaged or cause injury. Grasp the head of the applicator firmly before turning off the vacuum or releasing the Comfort Straps.

c. After you turn off the vacuum, the prompt changes to "Massage". Follow screen prompt to either Start or Cancel the massage.

You can leave the massage screen when a treatment is completed. When the Massage Timer ends, the "Next" button become available.

- d. Remove the applicator from the patient and place the applicator head in the bucket on top of the control unit with the cooling surfaces facing downward.
- e. Allow gel to drain into the bucket, or onto a towel or other absorbent material.
- f. Manually massage the treatment area for two minutes: You can leave the massage screen when a treatment is completed
- g. Use towels, gauze, or water-based wipes to remove any excess gel from the treatment area.

10. Clean the Applicator

Materials required:

- Cotton towel
- Water-based wipe or wet gauze
- Gauze soaked in isopropyl alcohol or equivalent wipes such as CaviWipes1[™] or PDI Sani Cloth Plus wipes



The electronic sensors on the cooling surfaces of the applicator are delicate and may be damaged by excessive pressure or unapproved cleaners. Use care when cleaning and storing the applicator. For more information, see "Cleaning and Maintenance".

- a. For C120, C150, C240, F125, and F165 Applicators:
 - 1. Disconnect the applicator from the umbilical and attach the protective cap to cover the applicator connection during cleaning.
- **Note:** Be sure to put on the cap on the applicator handpiece before cleaning the applicator.
 - 2. Hold the applicator over the system bucket or an absorbent pad and remove the used Gel Trap using the Gel Trap Removal Tool.
 - 3. Use a disposable washcloth or waterbased wipe to remove all residual gel within the cooling applicator cup, rim of the F_{165} Applicators cup, applicator housing, and umbilical.

Example: Gel Trap Removal Tool for C120. C150, C240, F125, and



- 4. Place a single layer of dry gauze over the applicator cup and use a cotton-tipped applicator to push the gauze through the Gel Trap Reservoir and remove any excess gel. Repeat as needed and use the same method to remove residual gel from the applicator vacuum channels.
- **Note:** When performing multiple treatments with the same applicator, repeat this step between each treatment application. Only move onto the following steps when all treatments with an applicator are completed for that patient. Additional cleaning steps listed below are required between different patient treatments.
 - 5. Clean the applicator cup, the rim of the cup, applicator housing, and the applicator cable with a gauze soaked in isopropyl alcohol or with a wipe such as CaviWipes1[™] or PDI Sani Cloth Plus wipes, according to the manufacturer's instructions.

- 6. Inspect the applicator and repeat the cleaning process as needed to eliminate any residual gel.
- 7. Store the applicator on an absorbent pad or silicone mat with the cooling cup facing up.
- b. For C80 Applicator:
 - 1. Insert the tip of the Gel Trap Removal Tool into the Gel Trap and slide forward to extract the Gel Trap.
 - 2. Use a disposable washcloth or water-based wipe to remove all residual gel within the cooling applicator cup, rim of the cup, applicator housing, and umbilical.
- **Example:** Gel Trap Removal Tool for C80 Applicator
- 3. Use a cotton-tipped applicator to remove any residual gel in the Gel Trap Reservoir.
- 4. Clean the applicator cup, the rim of the cup, applicator housing, and the umbilical with a gauze soaked in isopropyl alcohol or with a wipe such as CaviWipes1[™] or PDI Sani Cloth Plus wipes, according to the manufacturer's instructions.
- 5. Store the applicator on an absorbent pad or silicone mat with the cooling cup facing up
- c. For Surface Applicators: The Surface Applicators do not have a Gel Trap.
 - 1. Detach the Securement Grip from the applicator.
 - 2. Clean the Securement Grip, applicator, and umbilical with a gauze soaked in isopropyl alcohol or with a wipe such as CaviWipes1[™] or PDI Sani Cloth Plus wipes, according to the manufacturer's instructions a CaviWipes1[™] to remove all residual gel.
 - 3. Once dry, reattach the Securement Grip to the applicator.
- d. Inspect the applicator. Repeat the cleaning steps as needed to eliminate any residual gel.
- e. Discard the used CoolAdhesive Gelpad and Gel Trap according to your site's medical waste protocols. For Surface applicators, discard the Liner and Foam borders according to your site's medical waste protocols.

After a Treatment

When you turn off the vacuum after a treatment (there is no vacuum feature for the Surface Applicators), the screen prompt changes to "Massage". When massage timer ends, and when tapping **Next**, the two buttons become active: New Patient and Same Patient.

Note: Only one patient can be treated with either one or both applicators.



Example: Start another treatment

• To perform another treatment on the same patient:

- a. At the touchscreen, tap Same Patient. The Select Treatment Area screen displays.
- b. Go to the beginning of the "Set up the System Displays on Touchscreen" and repeat the procedure from that point.

• To perform a treatment on a different patient:

- a. At the touchscreen, tap **New Patient**. The Patient Properties page displays.
- b. Go to "Setup the system" step 1 and repeat the procedure from that point.



If you have finished performing treatments and want to power down the system, use the soft power off button. If moving the system, follow the instructions provided under "Power Receptacle and Power Switch".



If you want to move the unit to a different location, follow the instructions provided under "Casters with Locks".

Canceling a Treatment

You can cancel a treatment that is already in progress.

- ► To cancel a treatment:
 - a. During a treatment cycle, tap the Stop button. A confirmation dialog appears.
 - b. On the confirmation dialog, tap Stop.

The confirmation dialog closes, and the system stops cooling. The treatment clock stops at its current time and displays "CANCELED." The prompt displays the message "Operator canceled treatment."

- c. Tap Next.
- d. Tap the left side of the button on the touchscreen to toggle the vacuum from ON to OFF (the Surface Applicators do not have the vacuum feature). The screen prompt changes to "Massage".

If there are no active treatments running, two buttons become active: New Patient and Same Patient. Only one patient can be treated with either one or both applicators.

e. Go to task 9 of the treatment procedure ("End the Treatment") and follow the instructions from there until the end of the treatment procedure.

Treatment Stopped by System

If the system detects a condition that requires operator intervention, the system stops the treatment.

The treatment clock stops at its current time and displays "STOPPED." An error message identifies the problem and provides guidance, including an error code.



Example: Screen when treatment is stopped by the system for simultaneous treatment

A: Error text B: Error code C: STOPPED notice

• To respond to a stopped treatment:

a. Follow any instructions displayed on the screen.

Look up the error code in Chapter 4 System Messages and follow any recommended actions for the error.

- b. Tap **Next**. The prompt displays the instruction: "Turn the vacuum OFF. Remove the applicator from the patient." The Surface Applicators do not have the vacuum feature.
- c. Go to task 9 of the treatment procedure ("End the Treatment") and follow the instructions from there until the end of the treatment procedure.

CHAPTER 3

System Tools

System tools include performance logs, diagnostics, and system settings.

Controls for System Tools

The Tools button provides access to system tools. The Tools button is available in the upper right corner of the screen. Table 9 lists controls related to system tools.

► To access system tools:

1. From any treatment session screen, tap the **Tools** button, when the **Tools** button becomes illuminated prior to the profile step and during treatment with the remote notification option.

The Tools menu appears. From there, you can select Logs, Service, Settings, or About.

To exit system tools:

1. When any Tools screen is active, tap the **Close** button.

The Tools session closes, and the system returns you to the treatment session.

Button	Name	Description	
•	Tools	Enters and exits the Tools session:When a treatment session is active: Displays the Tools menu.	
		• When any Tools screen is active: Exits the Tools session and returns you to the treatment session.	
	Patient Call	Displays the Patient Call Button Screen.	
	Button	Allows you to pair/unpair device through Bluetooth.	
		The symbol is greyed out if the Patient Call Button is not connected.	
	Connectivity/ Signal quality	Displays the Modem Test Screen to check the connection and signal quality.	
		The symbol is greyed out if the modem is not connected to the cloud server.	
	Logs	Displays the Logs menu. From there, you can access the System Log and Card Log screens. The Systems Log allows uploading the log files.	
	Service	Displays vacuum pressure and chiller temperature of the applicators, and modem test.	

Table 9: Controls for System Tools

Settings	Displays the Settings screen. From there, you can access the system's Notifications, Date, Time, Language, and Icon Control screens. The Patient Call Button (PCB) is also available.
(i) About	Displays version information of the system.

System and Card Log Screens

The System Log and Card screens display system and card activity such as Treatment History (Table 10). Also, the System Log screens lets you to upload system log files.

Example: System and Card Log buttons



Table 10: System and Card Log Data

December 41 and

Item	Description	
Code	The ZELTIQ [®] error code and the Customer Service code in format Z###-###. This is available with "LOGS" screen.	
Message	The text of the control unit message. This is available within "LOGS" screen.	
Year	The year that the event occurred in "yyyy" format (for example, 2018). This is available within "LOGS" screen.	
Date	The month and day that the event occurred in "mmm dd" format (for example, Jun 22). This is available within "LOGS" screen.	
Time	The time that the event occurred in HH:MM format, where HH = hours and MM = minutes (for example, 12:02 PM). This is also listed within "CARD" screen, which is augmented with the complete date in numerical format: MM/DD/YYYY (for example, 06/30/2021).	
Status A	The status of Applicator A. This is available within "CARD" screen.	
Status B	The status of Applicator B. This is available within "CARD" screen.	

To View the System or Card Log files and uploading System Logs:

- a. From the Tools menu, tap the **Logs** button. The Logs menu appears under the Tools menu.
- b. From the Logs menu, tap the System or Card button. The Log screen appears.
 - **Note:** The information presented within the System and Card Logs screen is presented in table format. Within the table, you can click a column header to sort the data by that parameter. If the table contains more rows than can fit on one screen, a scroll bar allows you to view additional data rows.
- c. If you would like to upload the System log files, within the System Logs screen, tap on the Upload Logs tab on top of the table. Within the screen, there are three ways for selecting the date(s) such as "Last 24 Hours", "Date", and "Date Range". Tap Send.

The screen will display a progress wheel that shows the status of the upload.

- d. When you are finished with the Log, and the upload is completed, you can return to the Tools menu or view the Card Logs:
 - Tap the **Back** button to return to the Tools menu.
 - Tap the **Card** button to view your card activity. This displays a table of Treatment History.
 - Tap the **Back** button and **Close** button to exit the Tools session and return to the treatment session.

Service Screens

The Service screens allow diagnostics of the vacuum system and the chiller system. Also the service screen allows access to the modem.

Vacuum

Example: Service buttons



► To view the Vacuum screen:



Note: Call Customer Service (page vi) for both chiller and vacuum issues due to available standards for testing. Do not adjust the chiller and vacuum without guidance from Customer Service.

- 1. From the Service menu, tap the Vacuum button. The Vacuum screen appears.
- 2. From the Tools menu, tap the **Service** button. The Service menu appears under the Tools menu.
- 3. When you have finished adjusting the vacuum, you can return to the Tools menu or exit the Tools session:
 - a. Tap the **Back** button to return to the Tools menu.
 - b. Tap the **Close** button to exit the Tools session and return to the treatment session.

Chiller

► To view the Chiller screen:



Note: Call Customer Service (page vi) for both chiller and vacuum issues due to available standards for testing. Do not adjust the chiller and vacuum without guidance from Customer Service.

- 1. From the Tools menu, tap the **Service** button. The Service menu appears under the Tools menu.
- 2. From the Service menu, tap the **Chiller** button. The Chiller screen appears.

Note: Either Applicator A or/and B must be attached to the system before accessing target temperatures. If testing both Applicators A and B, both applicators must be attached to the system.

- 3. When you are finished viewing the target temperature, you can return to the Tools menu or exit the Tools session:
 - a. Tap the **Back** button to return to the Tools menu.
 - b. Tap the **Close** button to exit the Tools session and return to the treatment session.

Modem

- ► To view the Modem screen:
 - 1. From the Tools menu, tap the **Service** button. The Service menu appears under the Tools menu.
 - 2. From the Service menu, tap the **Modem** button. The Modem screen appears.
 - 3. If desired to test the modem, tap **Test**. Wait for modem initialization to complete. Information about the modem is displayed.
 - a. Tap the **Back** button to return to the Tools menu.
 - b. Tap the **Close** button to exit the Tools session and return to the treatment session.

Settings Menu



The Settings menu allows you to set the system's notifications, date, time, language, and icon control. The Patient Call Button (PCB) is also available.

Notifications

The Notification screen allows the system to send text messages to the recipient notifying treatment status such as treatment nearing completion, treatment completed, or when a system error has occurred.

- ► To set up:
 - 1. From the Tools menu, tap the **Settings** button. The Settings menu appears under the Tools menu.
 - 2. From the Settings menu, tap the Notifications button. The System Notification screen appears.
 - 3. For changing the System Name, type in new name and tap Edit.
 - 4. Set up notification recipients in the Recipients field:
 - a. To add a new recipient, tap **Add New** and type in name of recipient along with country code and phone number. A pop-up window appears for consent of the recipient of the text message. This must be accepted before moving forward with the next steps.
 - b. Type in name if recipient along with country code and phone number.
 - c. To edit or delete recipient, click on the recipient's name and tap Edit or Delete.
 - d. To allow notification for the recipient, check the box to the right of the recipient's names. This is the Notify checkbox for the recipient. Tap **Save** to save your changes.

Note: Ensure that the checkmark is visible within the check box for active recipient. If the checkbox is not set, the recipient will not receive notification.

Note: When turning notification off, uncheck the boxes next to the recipient names, then tap **Save** to save your changes.

- e. The pop-up closes. Tap Save again.
- f. Tap back to Exit.

Note: The system can have multiple active notification recipients.

- 5. Return to the Tools menu or exit the Tools session:
 - a. Tap the **Back** button to return to the Tools menu.
 - b. Tap the **Close** button to exit the Tools session and return to the treatment session.

Time Zone

The Time Zone selects the system's time zone.

► To set the time zone:

- 1. From the Tools menu, tap the **Settings** button. The Settings menu appears under the Tools menu.
- 2. From the Settings menu, tap the **Time Zone** button. The Time Zone screen appears.
- 3. Tap the desired Regions in the Regions field.
- 4. Tap the desired zones in the Zones field.
- 5. Return to the Tools menu or exit the Tools session:
 - a. Tap the **Back** button to return to the Tools menu.
 - b. Tap the **Close** button to exit the Tools session and return to the treatment session.

Date and Time

The Date and Time screen allows you to set the system's date and time.

To set the date and time:

- 1. From the Tools menu, tap the **Settings** button. The Settings menu appears under the Tools menu.
 - a. From the Settings menu, tap the **Date Time** button. The Date and Time screen appears.
 - b. Tap the desired date on the calendar.

Note: The current date is highlighted. The left and right arrows change the displayed month.

- 2. Set the desired time in the Time field:
 - a. To adjust minutes, tap the Up and Down arrows closest to the displayed time.
 - b. To adjust the hour, tap the Down arrow in the highlighted box; then select the hour from the displayed menu.
- 3. Tap **Save** to save your changes.
- 4. Return to the Tools menu or exit the Tools session:
 - a. Tap the **Back** button to return to the Tools menu.
 - b. Tap the **Close** button to exit the Tools session and return to the treatment session.

Language

The Language screen allows you to set the system's language.

- ► To set the language:
 - 1. From the Tools menu, tap the **Settings** button. The Settings menu appears under the Tools menu.
 - 2. From the Settings menu, tap the Language button. The Language screen appears.
 - a. Tap the desired language.
 - b. Tap **Save** to save your changes. If a new language is selected, the new language will display the next time the unit is turned on.
 - 3. Return to the Tools menu or exit the Tools session:
 - a. Tap the **Back** button to return to the Tools menu.
 - b. Tap the Close button to exit the Tools session and return to the treatment session.

Icon Control

The Icon Control screen allows you to turn the snowflake logo on or off.

- ► To turn the snowflake logo on or off:
 - 1. From the Tools menu, tap the **Settings** button. The Settings menu appears under the Tools menu.
 - 2. From the Settings menu, tap the Icon Control button. The Icon Control screen appears.
 - 3. Tap the desired ON or OFF.

Note: The On is selected as default.

- 4. Return to the Tools menu or exit the Tools session:
 - a. Tap the **Back** button to return to the Tools menu.
 - b. Tap the **Close** button to exit the Tools session and return to the treatment session.

About

The About screen allows you to view different components of the system and corresponding versions.

- ► To view About the System screen:
 - 1. From the Tools menu, tap the **About** button. The About screen appears.
 - 2. To exit the Tools session, tap the **Close** button to exit the Tools session and return to the treatment session.

CHAPTER 4

System Messages

If the system encounters a problem, it displays a message to help you diagnose and resolve the issue. The system provides four types of messages:

- **Recoverable Exceptions:** See Table 11.
- Error Messages Affecting either Applicator A or B: See Table 12.
- Error Messages for the System: See Table 13.
- Software Launch Messages: See Table 14.
- System Notification Text: See Table 15.

The system messages include a ZELTIQ[®] code and a Customer Service code. These codes are written together using the format Z###-YYY, where:

- Z### is the ZELTIQ[®] code (Z followed by a three-digit number)
- YYY is a three-digit Customer Service code that follows the ZELTIQ[®] code

When a recoverable exception or an error message occurs, carry out the recommended action, if any. If the problem persists, record both codes and contact Customer Service (see page vi). The codes help Customer Service identify and resolve the issue.

For assistance with any message not listed here, contact Customer Service (see page vi).

ZELTIQ [®] Code	Message text	Action
Z401	Applicator error. Z401-YYY	Disconnect and reconnect the applicator.
	Disconnect and reconnect the applicator.	
Z402	The card expired. Z402-YYY	Remove the card from the applicator and insert a new card.
	Connect a new card.	
Z404	The card and applicator are incompatible. Z404-YYY	Remove the card from the applicator. Insert a card that is appropriate for the applicator type.
Z405	Applicator software error. Z405-YYY	Use another applicator.
	Replace the applicator.	
Z406	Card error. Z406-YYY	Remove and reinsert the card.
	Disconnect and reconnect the card.	

Table 11: Recoverable Exceptions

ZELTIQ [®] Code	Message text	Action
Z409	Thermal event detected. Z409-YYY	When the Freeze Detect [®] system detects a possible freeze condition, it stops the treatment cycle and displays a Thermal Event alert message (Z409 message).
	Remove the applicator and Gelpad.	1. Stop treatment.
	Do not treat the same area for at least 24 hours.	2. Remove the applicator and CoolAdhesive Gelpad.
		3. Assess the tissue and discontinue the treatment.
		4. Do not retreat for at least 24 hours.
		Note: Failure to follow instructions could result in injury to the patient, including first or second-degree burns. and resulting complications such as hypopigmentation / hyperpigmentation.
Z412	Treatment quality error. Z412-YYY Start a treatment. If the problem persists, contact Customer Service.	Restart the treatment or start a new treatment.
Z415	Potential loss of patient contact. Z415-YYY	Turn off the vacuum, remove the applicator cup from the patient, discard the used CoolAdhesive Gelpad, and clean the
	Reapply the applicator and start a treatment. If the problem persists, contact Customer Service.	treatment site. Then apply a new CoolAdhesive Gelpad and reposition the applicator. Ensure that the applicator is secure. Restart an interrupted treatment or start a new treatment.
Z417	Card compatibility error. Z417-YYY	Insert a card that is compatible with the control unit.
	Replace the card.	
Z426	Interference detected. Z426-YYY	Identify and resolve possible causes:
	Start a treatment. If the problem	Patient movement
	persists, refer to the User Manual.	Another medical electronic device in close proximity
		If the problem persists, contact Customer Service.
Z428	This system must be serviced no later than Month, Day, Year to ensure continued use. Z428-YYY	Contact Customer Service
	Contact Customer Service.	
Z430	Applicator compatibility error. Z430- YYY.	Disconnect the current applicator and connect a compatible applicator.
	Contact Customer Service.	

Table 12: Error Messages: Affecting either Applicator A or B

ZELTIQ® Code	Message text	Action
	Chiller error. Z601-YYY	For all error messages:
Z601	This side is unavailable until the system has been powered off and on.	 If a system error occurs, treatment automatically stops. Contact Customer Service.
	Control unit error. Z603-YYY	• Power the control unit off and on.
Z603	This side is unavailable until the system has been powered off and on.	 If the problem persists, contact Customer Service.

Table 13: Error Messages: System

ZELTIQ [®] Code	Message text	Action
Z801	Chiller error. Z801-YYY	For all error messages:If a system error occurs, treatment
Z803		 automatically stops. Contact Customer Service.
	Control unit error. Z803-YYY	 Power the control unit off and on.
		 If the problem persists, contact Customer Service.

Table 14: Software Launch Messages

ZELTIQ [®] Code	Message text	Action
Z920	Z920-YYY Control Unit Error	Power the control unit off and on. If the problem persists, contact Customer Service.
Z921	Z921-YYY System Locked due to Failed Install	System is locked from use until a successful USB install is completed. If the problem persists, contact Customer Service
Z980	Z980-YYY Software Installation Error	Power the control unit off and on and retry the software installation. If the problem persists, contact Customer Service.

Table 15: System Notification Text

The notification text is transmitted to the pager when the pager event occurs.

Notification Text	Notification Event
R01: System {side A or B (optional)} error detected.	System error
R02: Treatment {side A or B} complete.	Treatment completed successfully
R03: Treatment {side A or B} canceled.	Treatment canceled
R04: Error detected. Treatment {side A or B} stopped.	Treatment ended with an error
R05: Treatment {side A or B} ends in {0} minute(s).	Treatment almost complete
R06: Patient called.	Patient call

CHAPTER 5

Cleaning and Maintenance

Perform routine cleaning and maintenance according to your site's protocols.

Cleaning

<u>,</u>

The use of an unapproved cleaning solution or method on the control unit or applicator may result in damage. Always use approved products and follow the guidelines below.

Approved Products

The following products are approved for cleaning the control unit and applicators:

- Isopropyl alcohol
- Mild detergent and warm water
- PDI Sani Cloth Plus wipes or CaviWipes1™

Cleaning Guidelines

- Unplug the control unit before cleaning.
- Use cleaning wipes or spray the cleaning agent on a soft wipe, paper towel, or equivalent material.
- After cleaning the system components, dry them with a soft cloth to remove any cleaning residues.



Do not spill any fluid directly on any part of the control unit, or applicators.



Do not submerge the applicator or any other part of the system in any liquid.



Do not use excessive amounts of fluid.



Do not apply cleaning solution to the electrical connections.

Do not sterilize the control unit, applicator, or any other system components.

Cleaning the Touchscreen

For best performance, clean the touchscreen regularly.

Approved cleaning products include:

- Isopropyl alcohol
- Window cleaning fluid
- To clean the touch screen:
 - 1. Dampen a soft lint-free cloth with isopropyl alcohol or window cleaning fluid.
 - 2. Wipe the touch screen gently.

Cleaning the Bucket

Approved cleaning products include:

- Damp towel or water-based wipe
- Isopropyl alcohol
- Mild detergent and warm water
- PDI Sani Cloth Plus wipes
- ► To clean the bucket:
 - 1. Dampen a towel with a cleaning solution or use a water-based or cleaning solution wipe, wipe away residual gel.
 - 2. Alternately, pull out bucket to rinse with water. Dry the bucket with a cloth and return to its slot.

• To clean the support arm:

- 1. Clean the arm before each patient use. Do not use excessive amounts of fluid.
- 2. Moisten a soft cloth with a neutral detergent and warm water. Wipe all surfaces of the arm with the moist cloth.
- 3. Wipe the arm with a soft, dry cloth to remove cleaning residue.

Maintenance

Service Life

The service life of the *CoolSculpting*[®] *Elite* Control Units and applicators are 7 years. Refer to the device label of the consumables for the shelf-life information.

Filter Replacement

The purpose of this filter is to extend the service life of your control unit. It is recommended to replace the filter every 6 months.

To replace to the filter:

- 1. Access the filter door from the front of the console, located below the base.
- 2. Push the filter door to release the "push-push" latch.
- 3. Rotate the door down to access the filter attached.
- 4. Pull filter free from door.
- 5. Install new filter so that the plastic hooks on the door hold it in place.

Note: Ensure the filter is placed into the door with the flat side of the filter down, otherwise, the filter will not be secured into the door properly.

6. Push door back into place to latch.









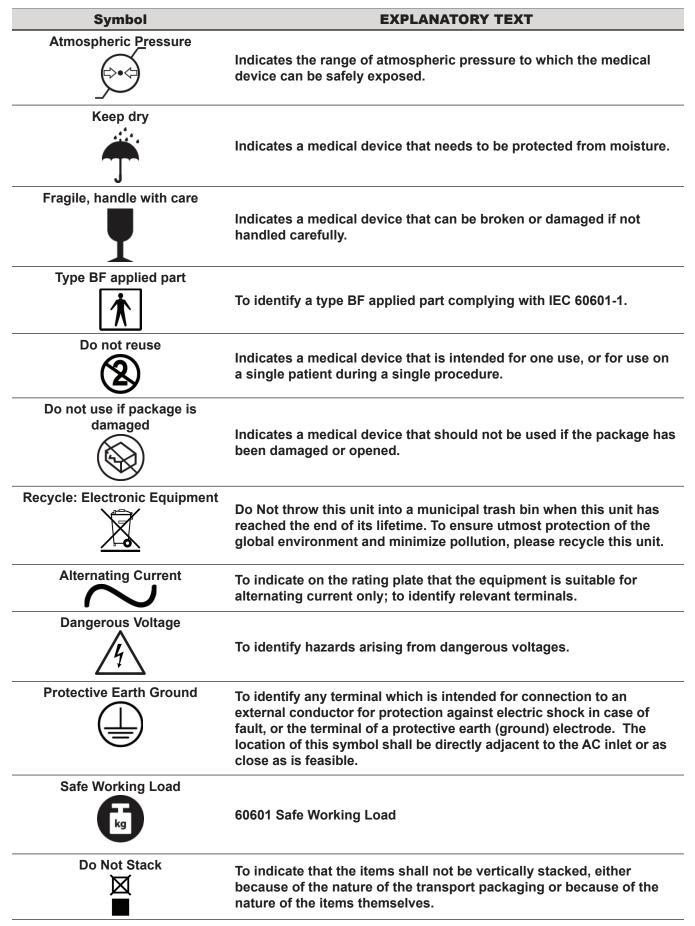
Steps 4, 5, and 6

System Symbols

The following symbols are used on the components of the system and on its supplies and packaging.

Table 16: System Symbols

Symbol	EXPLANATORY TEXT
1	Warning
<u>,</u>	Caution
Manufacturer	Indicates the medical device manufacturer.
Date of manufacture	Indicates the date when the medical device was manufactured.
Catalogue or model number	Indicates the manufacturer's catalogue number so that the medical device can be identified.
Serial number	Indicates the manufacturer's serial number so that a specific medical device can be identified.
Batch code/ Lot code	Indicates the manufacturer's batch code so that the batch or lot can be identified.
Use by date	Indicates the date after which the medical device is not to be used.
Follow instructions for use	Refer to instruction manual/booklet.
Consult instructions for use	Indicates the need for the user to consult the instructions for use.
Caution	Indicates the need for the user to consult the instructions for use for important cautionary information such as warnings and precautions that cannot, for a variety of reasons, be presented on the medical device itself.
Storage humidity range	Indicates the range of humidity to which the medical device can be safely exposed.
Storage temperature range	Indicates the temperature limits to which the medical device can be safely exposed.



Symbol	EXPLANATORY TEXT
Recycle (New Wood)	
	Indicates an item can be recycled.
Quantity	Placeholder for Quantity. The actual number is added when used. Included within symbol glossary for explanation only.
	included within symbol glossary for explanation only.
	Note: A square icon with a number inside may be on product labels.
Prescription only RONLY	Requires prescription in the United States. Affix to label.
Authorized Representative	Indicates the authorized representative in the European community.
CH REP	Indicates the name and address of the authorized representative in Switzerland.
CE Mark	
CE 2797	The CE Mark with the four-digit Notified Body number.
	Indicates the entity importing the device into Europe. Name and address of the importer shall be adjacent or below the symbol.
İ İ	Indicates a website where a patient can obtain additional information on the product
	Regulatory Compliance Mark (Australia)
C C VI/Teenland	Electromedical Safety Label Requirement
Unique Device Identifier (UDI)	Used to identify which information is associated with Unique Device Identifier.
Country of Manufacture	To identify the country of manufacture of products. In the application
	of this symbol, the "cc" shall be replaced by either the two-letter country code or the three-letter country code defined in ISO 3166-1.
Textile products only: Care symbol	pols
	and Tumble Line Do Not Iron Do Not Dry Do Not Tumble ash Dry Low Dry Clean Dry

Appendix B

System Specifications

This product may contain remanufactured parts or parts that have had incidental use, all of which are equivalent in performance to new parts.

Essential Performance

Table 17: Performance Characteristics

Device State	When Target Is:	Required Device Performance Is:
Cooling	Below 5°C	No more than 1°C below the target temperature
Steady state	2-10 InHg	Vacuum pressure controlled to within ± 0.5 inches of Hg

Environmental Requirements

The system and its components are designed to operate normally when stored, shipped, and operated under the conditions specified in Table 18: Environmental Requirements.



Use of the system in an oxygen-rich environment may cause fire. Do not use the system in an oxygen-rich environment.

The system may not operate as expected if it is stored or operated in conditions of excessive heat, humidity, or atmospheric pressure. Operate and store the system in a room that meets the stated requirements.

Table 18: Environmental Requirements

Condition	Shipping/Storage Requirement	Operating Requirement		
Temperature	14°F to 140°F (-10°C to 60°C)	59°F to 82°F (15°C to 28°C)		
Humidity	10% to 95% (non-condensing)	10% to 70% (non-condensing)		
Atmospheric pressure	14.7 psi (101.33 kPa) to 10.1 psi (69.64 kPa).	14.7 psi (101.33 kPa) to 10.1 psi (69.64 kPa).		

Dimensions and Weight

Item	Height	Depth	Width	Weight
Control unit	53 in.	24 in.	24 in.	Approx 153 lbs
	135 cm	61 cm	61 cm	Approx 70 kg

Table 19: Dimensions and Weight

Electrical Specifications

Electrical Safety

Class I Equipment, Single-Phase AC, Continuous Operation Contains Type BF Patient-applied Parts

Water Ingress Protection: IPX0

Table 20: Electrical Specifications

REF	Voltage	Frequency	Current
CS-S3-002-D-01	100 to 120 VAC	50/60 Hz	10A

Fuses

The fuses are located inside the unit and are not serviceable by the customer.

Table 21: Fuse Specifications

Туре	Rating	Quantity
5 mm x 20 mm (glass body cartridge)	250VAC, 6.3A, Slow-Blow (Time Lag)	2

Medical Safety Standards

The system complies with the following medical safety standards:

• IEC 60601-1:2005/A1:2012

Electromagnetic Compatibility

The system has been tested and found to comply with Medical Standard Electromagnetic Compatibility (EMC) IEC 60601-1-2:2014. The system complies with the standards outlined below.

This system requires special precautions to ensure electromagnetic compatibility with other electrical medical devices. To ensure EMC, the system must be installed and operated according to the information provided in this manual.



When the system is interconnected with other electrical devices, it may result in electromagnetic emissions that can interfere with the normal function of electronic medical equipment.



To properly control electromagnetic emissions and avoid potential harm to the patient or user, ensure all electrical devices are installed and interconnected.



Install the system in a room that complies with all applicable IEC, CEC, and NEC requirements for safety of electrical devices.



Portable and mobile RF communications equipment may affect the normal function of the system.



Use of the system adjacent to or stacked with other equipment may result in unexpected electromagnetic circumstances. Prior to such use, test the operation of the system in the proposed configuration and ensure it meets all requirements as defined in the tables below. See below for guidance in placing the system.



Use ports on the system exactly as instructed in this manual. Any other use of these ports may cause unexpected results. See "System Overview".



Do not use cables or accessories other than those provided by ZELTIQ[®]. The use of other cables or accessories may result in increased electromagnetic emissions or decreased immunity to such emissions.

The system is intended for use in the electromagnetic environment specified in Table 22: Guidance and Manufacturer's Declaration - Electromagnetic Emissions. The customer or user of the system should ensure that it is used in such an environment.

Emissions Test	Compliance	Electromagnetic Environment - Guidance	
RF Emissions CISPR 11	Group 1	The system uses RF energy only for its internal function; therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.	
RF Emissions CISPR 11	Class A	(A) The system is suitable for use in all establishments other – than domestic, and may be used in domestic establishments	
Harmonic emissions Class A IEC 61000-3-2		and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic - purposes, provided the following warning statement is heeded:	
Voltage fluctuations/ Flicker emissions IEC 61000-3-3	Class A	CAUTION: The system is intended for use by healthcare professionals only. The system may cause radio interference or may disrupt the operation of nearby equipment. It may be necessary to take mitigation measures, such as reorienting or relocating the system or shielding the location.	
		The EMISSIONS characteristics of this equipment make it suitable for use in industrial areas and hospitals (CISPR 11 class A). If it is used in a residential environment (for which CISPR 11 class B is normally required) this equipment might not offer adequate protection to radio-frequency communication services. The user might need to take mitigation measures, such as relocating or re-orienting the equipment.	

Table 22: Guidance and Manufacturer's Declaration	- Electromagnetic Emissions

Table 23: Guidance and Manufacturer's Declaration - Electromagnetic Immunity

Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment - Guidance
Electrostatic discharge (ESD) IEC 61000-4-2	±8kV contact ±15kV air	±2,4,6, 8kV contact ±2,4,8, 15kV air	Floors should be wood, concrete, or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical fast transient/burst IEC 61000-4-4	±2kV for power supply lines ±1kV for input/output lines	±2kV for line to ground ±1kV for line to line	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±1kV differential mode ±2kV common mode	± 0.5, 1kV differential mode ±0.5, 1, 2kV common mode	Mains power quality should be that of a typical commercial or hospital environment.

Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment - Guidance
Voltage dips, short interruptions, and voltage	0% U ₇ : 0.5 cycle at 0°, 45°, 90°, 135°, 180°, 225°, 270°, and 315°	0% U ₇ : 0.5 cycle at 0°, 45°, 90°, 135°, 180°, 225°, 270°, and 315°	Mains power quality should be that of a typical commercial or hospital environment. If the user of the system requires continued
variations on power supply input lines IEC 61000-4-11	0% U _r : 1 cycle and 70% U _r : 25/30 cycles	0% U _T : 1 cycle and 70% U _T : 25/30 cycles	operation during power mains interruptions, it is recommended that the system be powered from an uninterruptible power supply or a battery.
	Single phase: at 0°	Single phase: at 0°	or a battery.
	0% U _⊤ : 250/300 cycle	0% U _T : 250/300 cycle	
	* U_{_{T}} is the AC mains voltage price	or to application of the test level.	
Power frequency (50/60Hz) magnetic field IEC 61000-4-8	30A/m	30A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.

Portable and mobile RF communications equipment should be used no closer to any part of the system, including its cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.

Recommended Separation Distance:

Data Module Specifications (Modem and Wi-Fi)

The device includes following data modules (Modem and Wi-Fi). Table 24 lists the specifications for each model. Use each module only with the antenna provided by ZELTIQ[®].

Module Type	Manufacturer and Model	IC # and FCC ID #	Frequencies (MHz)	Network Type	Effective Radiated Power
Cell Modem: 4G LTE with HSPA+ fallback embedded cellular modem	Multitech MTSMC- LAT3-U.R2	IC 5131A-LE910NAV2 FCC ID RI7LE910NAV2	700 (B12/ B13)/850 (B5)/ AWS 1700 (B4)/ 1900 (B2)	4G	Maximum 0.2W
			850 (B5)/1900 (B2)	HSPA+ (3G)	Maximum 0.25W
Wi-Fi: BLT	Redpine RS9113-NBZ- D3N	IC 8407A-RS9113DB FCC ID XF6-RS9113DB	802.11n: from 6.5 Mbps to 150 Mbps (MCS 0-7) 802.11a/g: from 6 Mbps to 54 Mbps 802.11b: from 1 Mbps to 11 Mbps Bluetooth: 1, 2, 3Mbps 802.15.4-2009: 250Kbps	Wi-Fi Bluetooth ZigBee	Wi-Fi: 18 dBm for 802.11b DSSS Power (+/-2 dBm) 18 dBm for 802.11g/n OFDM 12 dBm for 802.11a/n OFDM Bluetooth: 15 dBm ZigBee: 15 dBm

Table 24: Data Module Specifications (Modem and Wi-Fi)

Electromagnetic Compatibility Compliance - Data Modem

The CoolSculpting[®] Elite System with the data modem complies with the following medical electrical safety standards:

• IEC 60601-1-2:2014

The limits are designed to provide reasonable protection against harmful interference in a typical medical electrical installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. There is no guarantee that interference will be prevented by following the manufacturer's instructions in a particular installation.

If this equipment causes interference with other devices, which may be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by carrying out one or more of the following measures:

- Reorient or relocate the device receiving the interference.
- Increase the separation between the equipment and the device receiving the interference.
- Connect the equipment into an outlet on a circuit different from that to which the other device(s) are connected.
- Consult the manufacturer or field service technician for help.

Appendix C



Do not dispose system in domestic waste stream. Various components of the system may contain materials whose disposal is subject to regulation. The system contains a lithium battery, which is not serviceable by the customer. Dispose of all components of the system in accordance with applicable regulations.

Contact your local environmental control agency for additional information on recycling or disposing of the system in your area.

Appendix D

ZELTIQ[®] Clinical Studies

Note: When the flank, abdomen, and thigh studies were performed, the degree of cooling or heating during a treatment was expressed as the Cooling Intensity Factor (CIF). The CIF was an index that represented the rate of heat flux into or out of tissue relative to 37°C. A positive CIF described the rate of heat flux out of tissue. A negative CIF referred to the rate of heat flux into tissue. The studies in this section used the CIF as a unit of measure. Current treatment parameters refer to the temperature at the surface of the applicator.

The ZELTIQ[®] CoolSculpting System has undergone pre-clinical and clinical investigation (data on file at ZELTIQ[®]). The clinical investigation and results pertaining to skin cooling for fat layer reduction in submental and submandibular areas, abdomen, flanks, thighs, and alternate treatment parameters are summarized in this section.

Table 25 summarizes the efficacy information for each study that has been conducted. Further details on each study can be found in the individual summaries below.

Treatment Site	Photographic Review Results (% correct)	Ultrasound Results (mean reduction in mm)	Subject Satisfaction (% satisfied)
Flanks	88.6	N/A	82.1
Abdomen	85.3	1.9	62
Inner thigh	90.5	2.8	93.3
Outer thigh	83.9	2.5	86.5
Modified treatment parameters	85	3.92	88.37
Submental Area	91.4	2.0	83.3
Upper Arm	85.2 [72.9%, 93.4%]	3.2	63.3

Table 25: Summary of Study Efficacy

Flank Study

Assessment Time Line

A clinical study that enrolled 60 healthy adult subjects, aged 23 to 65 years at two clinical centers was conducted from August 2007 through June 2008. Each individual received one or more applications of the ZELTIQ[®] CoolSculpting System with a ZELTIQ[®] vacuum applicator. Assessments of treatment efficacy and safety were performed as follows:

Table 26: Treatment Effi	acy and Safety	Assessments
--------------------------	----------------	-------------

Assessment	Prior to Day 0	Day 0 Treatment	1 week	2 months	6 months
Consent screening	\checkmark				
Baseline demographics		\checkmark			
Phone follow-up			\checkmark		
Photographs		\checkmark		\checkmark	\checkmark
Ultrasound		\checkmark		\checkmark	\checkmark
Clinical assessment		\checkmark	\checkmark	\checkmark	\checkmark

Four groups were treated with the treatment regimens shown in Table 27. A short period (two to five minutes) of simultaneous tissue cooling and massage was used during each treatment to facilitate lipolysis. For each subject, the larger of the two flank bulges was treated, leaving the contralateral side as an untreated control.

Treatment Group	Number of Subjects	Cooling Intensity Factor (CIF)	Temperature	Cooling Duration (minutes)	Energy Extraction Rate (mW/cm²)
Group 1	28	33	-4°C	60 min	63.6
Group 2	11	37	-7°C	30 min	68.3
Group 3	11	37	-7°C	45 min	68.3
Group 4	10	42	-10°C	30 min	72.9

Table 27: Treatment Regimens

Clinical Efficacy Results: Blinded Photographic Evaluation

Efficacy was determined by photographic evaluation, ultrasound fat-thickness measurements, clinical assessments, and subject satisfaction. A blinded photographic evaluation was performed of 50 evaluable subjects in which three blinded reviewers were provided two series of photographs for each subject, one series taken at baseline, and the other taken post-treatment. Each reviewer was asked to identify the baseline photo series independently. In the blinded photographic review of all subjects the reviewers correctly identified the baseline photo series 88.6% of the time.

Treatment Group	Number of Subjects	All Data % Correct ± % SE	All Data p-values
All Groups	50	88.6 ± 4.1	< 0.001*
Group 1	20	90.7 ± 5.1	< 0.001*
Group 2	10	90.0 ± 9.5	< 0.005*
Group 3	11	90.9 ± 8.7	< 0.001*
Group 4	9	66.7 ± 15.7	< 0.4

Table 28: Independent Photo Review Results

Post-treatment ultrasound measurements of fat layer thickness were compared with baseline measurements, using the untreated control side to normalize for weight changes that may have occurred during the follow-up period. The fat layer reduction as measured with ultrasound averaged 18.7% from baseline, after being normalized by the untreated control side. Ultrasound measurements at two months and at six months indicate that on average, 75% of the total fat layer reduction for a subject was realized within two months of treatment. Overall, 82.1% of subjects enrolled in the study indicated they were satisfied with the treatment.

Clinical Safety Results

Reported side effects included pain during or post-treatment, minor or significant bruising of the treated area, temporary hypoesthesia, tingling, erythema, and edema. All side effects during this study resolved spontaneously, most resolved within hours or days of the treatment.

Resolution of Hypoesthesia

Partial numbress and, to a lesser extent tingling, over the skin of the application site were reported for all subjects immediately post-treatment and for 68% of subjects by one week post-treatment. Partial numbress or tingling is a temporary and anticipated effect of the treatment and was found to resolve without intervention within two to three weeks on average, although in 8.3% of the cases these effects endured for as long as two months.

Adverse Events

There were four relatively minor adverse events; each was anticipated and resolved without intervention. During treatment, two adverse events were reported involving pain and/or discomfort. Each of these resolved after treatment was discontinued. Following treatment, two adverse events were reported: severe bruising and minor cramping or muscle spasm in the treatment area. Both resolved without intervention within four weeks. None of the adverse events reported during this study was considered serious or unanticipated.

During the clinical investigation, serum lipids and liver enzymes were measured in a subset of 20 subjects at times from 1 week to 12 weeks post-treatment to determine whether the CoolSculpting treatment had an effect on clinical chemistry. The following analytes were measured: Cholesterol, Triglycerides, HDL Cholesterol, LDL Cholesterol, VLDL Cholesterol, Cholesterol/HDL Ratio, Total Protein, Albumin, AST-SGOT, ALT-SGPT, Total Bilirubin, and Direct Bilirubin. No statistically significant changes were found for serum lipids or liver enzyme data from baseline over the duration of the study.

BMI Recommendations

For best results, patients should have a BMI of 30 or less and should maintain a healthy lifestyle following a treatment. The study evaluations for this clinical investigation included subjects with a Body Mass Index up to 38.7; however, patients who are significantly overweight are less likely to appreciate a significant improvement with a single treatment.

Skin Type

The clinical investigation subject population included Fitzpatrick skin types ranging from I to VI, with the majority of subjects being types II to IV. No change in skin pigmentation was observed following a treatment.

Based on the clinical data, ZELTIQ[®] recommends that practitioners read this Preface carefully and pay special attention to Warnings and Cautions throughout the User Manual and Instructions for Use.

Abdominal Study

A separate clinical investigation with the CoolSculpting device on the fat layer of the abdomen resulted in a clinically measurable reduction of local subcutaneous fat of the abdomen, in the same manner that was previously demonstrated for the flank. Treatments were performed at -10°C (CIF 42) for 60 minutes. The primary endpoint results (Independent Photo Review) revealed that the percent correct identification of the pre-treatment images exceeded the pre-established 80% criterion and is statistically significant. Fat layer reduction in the treated area of the abdomen was further documented by ultrasound imaging which also revealed a statistically significant and clinically relevant reduction. Overall, 62% of subjects enrolled in the study indicated they were satisfied with the treatment.

Study data also revealed that the treatment is as safe when used in the abdomen as previously tested for the flank. Data collected during the study demonstrated that the post-treatment lipid profile and liver function tests showed no statistically significant difference from baseline. This was true for mean values for the entire population as well as for each individual subject. No serious adverse events were reported during the abdomen study. The results of this clinical study provide supportive evidence that treatment with the CoolSculpting device provides consistent and clinically significant reduction of the fat layer of the abdomen.

Summary of Thigh Studies

ZELTIQ[®] conducted two clinical investigations to determine the safety and efficacy of cold-assisted lipolysis in the thigh region. In the inner thigh study, 90 treatments were completed with the flat cup vacuum applicator at -10°C (CIF 42); in the outer thigh study, 40 treatments were completed with the belt applicator at -10°C (CIF 23). Follow-up data is available for both studies up to 16 weeks post-treatment. Three blinded evaluators assessed the photos for visible reduction of fat in the treatment areas at the 16-week follow-up visit. The evaluators were presented with the series of photographs and were asked to identify the pre-treatment photographs for each subject.

The overall correct identification rate by the three evaluators was 90.5% for the inner thigh study and 83.9% for the outer thigh study. At least two out of three evaluators correctly identified 90.5% of all photo pairs for the inner thigh study and 87.1% for the outer thigh study. The results demonstrate that the ZELTIQ[®] CoolSculpting System affects the appearance of the thighs.

Change in subcutaneous fat layer thickness was also measured by ultrasound at 16 weeks: In the inner thigh study average fat thickness change was a 2.8 mm decrease. In the outer thigh study average fat thickness change was a 2.5 mm decrease. Overall, for the inner thigh study, 93.3% of subjects enrolled in the study indicated they were satisfied with the treatment. Overall, for the outer thigh study, 86.5% of subjects enrolled in the study indicated they were satisfied with the treatment.

Adverse events reported during the studies included numbness and mild contour irregularity. All adverse events but one resolved by the 16-week follow-up. A mild case of hyperpigmentation in the treatment area persisted beyond the 16-week follow-up. This is an adverse event that typically resolves spontaneously. The clinical investigations demonstrate that use of the ZELTIQ[®] CoolSculpting System can safely and effectively induce cold-assisted lipolysis in the thigh in the same manner as in the abdomen and flanks.

Summary of Study with Modified Treatment Parameters

A study of a modified treatment parameter was designed to evaluate the safety and efficacy of the CoolSculpting System with a colder, shorter treatment. In this study, 63 treatments were completed with the CoolCurve+ applicator on 45 subjects. Each subject received one or two non-overlapping unilateral vacuum treatments of the flank at a treatment temperature of -15°C for 45 minutes; immediately after each treatment, the treated tissue was massaged manually for two minutes. Follow-up data is available for up to 16 weeks post-treatment.

Subject safety was assessed throughout the study, including immediately post-treatment, one-week post-treatment telephone follow-up, and at 8- and 16-week post-treatment clinic visits. The primary safety endpoint was the occurrence of device- or procedure-related adverse events. No serious adverse events were reported during the study or 16-week follow-up period. Adverse events reported during the study included mild numbness, post-treatment pain, hyperpigmentation, subcutaneous induration, and first-degree burn in the treatment area. All but three adverse events resolved by the 16-week follow-up. Three subjects reported mild numbness at the 16-week follow-up; all three reported resolution within the next 19 calendar days.

The primary efficacy endpoint was the change in fat layer thickness as measured with ultrasound. Fat layer reduction in the treated area of the flank was documented by ultrasound imaging pre-treatment and at 8 and 16 weeks post-treatment. Subsequent evaluation of the ultrasound images revealed a statistically significant and clinically relevant reduction.

Secondary efficacy endpoints included correct identification of pre- and post-treatment images by three blinded independent reviewers, and subject satisfaction assessment by subject questionnaire. Photos taken at baseline and at the 16-week follow-up visits were reviewed by a blinded independent panel of three physicians board-certified in dermatology or plastic surgery. The overall correct identification rate by the three evaluators was 85%, which exceeded the pre-established 80% criterion and is statistically significant.

The secondary efficacy endpoint for subject satisfaction was performed by means of a questionnaire with questions about the comfort and subjective results of the treatment, and about the subject's attitudes toward CoolSculpting after treatment. With the exception of comfort, the majority of responses were positive to very positive. Overall, 88.37% of subjects enrolled in the study indicated they were satisfied with the treatment.

These clinical findings demonstrate that use of the CoolSculpting System can safely and effectively induce cold-assisted lipolysis with colder temperatures down to -15°C for shorter duration treatments with vacuum and surface applicators.

Submental Area Study

ZELTIQ[®] conducted a clinical investigation to determine the safety and efficacy of the CoolSculpting System for affecting the appearance of visibly localized subcutaneous fat localized in the submental area.

In this study, 60 subjects were enrolled at three clinical sites. Sixty initial treatments were performed with the prototype CoolMini vacuum applicator; 59 subjects were re-treated at the 6-week follow-up visit. Treatments were performed at -10°C for 60 minutes. Follow-up data is available through 12 weeks post-treatment. Subject safety was assessed throughout the study.

The primary safety endpoint was the measurement of all device- or procedure-related adverse events. All adverse events reported during and after the treatment were included in the safety analysis. The primary safety endpoint was met. No device- or procedure-related serious adverse events (SAE) and no unanticipated adverse device effects (UADE) occurred during the study. Four device- or procedurerelated adverse events were reported and have resolved. Clinical safety assessment showed anticipated side-effects, all of which resolved over the course of the study. The safety data recorded during this study supports the safety of the treatment parameters and device investigated.

The primary efficacy endpoint was correct identification of pre-treatment vs. 12-week post-final treatment images by 3 blinded independent reviewers. The overall correct identification rate by the 3 reviewers was 91% for the per-protocol population (n=58), which met the pre-established 80% criterion for success. The primary efficacy endpoint was met.

Reduction in subcutaneous fat layer thickness as measured by ultrasound at 12-weeks post-final treatment was a secondary efficacy endpoint for this study. Analysis of the per-protocol data (57 subjects) showed a statistically significant (p<0.0001) reduction of 0.20 cm. Therefore, the secondary efficacy endpoint for reduction of fat layer thickness was met.

The secondary efficacy endpoint for subject satisfaction was assessed by a questionnaire administered at 12 weeks post-final treatment. Overall, 83.3% of subjects enrolled in the study indicated they were satisfied with the treatment and 80% reported that they would recommend the treatment to a friend.

These clinical findings demonstrate that use of the CoolSculpting System can safely and effectively affect the appearance of visible fat bulges in the submental area with treatment at -10°C for 60 minutes.

Summary of Upper Arm Study

ZELTIQ[®] conducted a clinical investigation to evaluate the safety and efficacy of cryolipolysis for non-invasive reduction of upper-arm fat.

In this study, 30 subjects were enrolled at two clinical sites. Sixty initial treatments were performed with a prototype of the CoolAdvantage applicator (CoolFit with aluminum Insert). Each subject was treated once on each upper arm, at -11°C for 35 minutes. Follow-up data is available through 12 weeks post-treatment. Subject safety was assessed throughout the study.

The primary safety endpoint was the incidence of unanticipated adverse device effects. Clinical safety assessment showed anticipated side-effects. There were 4 patients with prolonged numbness lasting greater than 12 weeks. No unanticipated adverse device effects, or serious device- or procedure-related adverse effects occurred. All device- and/or procedure-related adverse events resolved spontaneously. The primary safety endpoint was met.

The primary efficacy endpoint involved independent panel review of pre- and 12-week post-treatment photographs of the treatment area for discernible fat layer reduction. The per protocol population consisted of all the treated subjects followed for 12 weeks with weight change of no more than 5% of total body weight at the time the 12-week images were taken. For the per protocol population, the correct baseline photograph identification rate by the independent panel reviewers was 85.2% [72.9%, 93.4%].

Further evidence of treatment efficacy is found in the data from ultrasound measurements of fat reduction at the treated areas, with significant reduction in the fat layer (0.32 cm) from baseline to 12 weeks post-treatment.

The secondary efficacy endpoint for subject satisfaction was assessed by an IRB-approved questionnaire administered at 12 weeks post-treatment. 72.41% of the subjects found the procedure to be comfortable to very comfortable, and 63.3% of the subjects reported that they would recommend the procedure to a friend.

These clinical findings demonstrate that use of the CoolSculpting System can safely and effectively affect the appearance of visible fat bulges in the upper arm area with treatment at -11°C for 35 minutes.

Summary of Submental Area Study

A prior study (ZA14-002), approved by the Food and Drug Administration (FDA) under IDE G140083, reported the efficacy of cryolipolysis for non-invasive reduction of submental fat. Subsequently, a retrospective study was carried out in which standardized, masked, photographic images from the original ZELTIQ[®]-sponsored clinical study were evaluated quantitatively to determine the efficacy of the CoolSculpting treatment in affecting the appearance of lax tissue in the submental area.

This retrospective study started with the ZA14-002 per-protocol population (n=58) for analysis, excluded one subject due to excessive hair in the submental region, and used the remaining fifty-seven (57) subjects for analysis. Lateral photographic views of the face taken at baseline and at the 12-week post-final treatment visit were included in the analysis. Each photograph was cropped and masked prior to evaluation. A board-certified plastic surgeon identified the following anatomical points on each photograph: the lateral canthus, the anterior-most point where the nostril meets the columella, and the point where the chin meets the neck (submental crease). AutoCAD software was used to apply lines to each photograph, and areas in the submental region were measured. A responder analysis was performed with the criteria being $\geq 20 \text{ mm}^2$ decrease in area as measured on both the right lateral and left lateral views of the region.

A second analysis was performed in which reviewers compared the results from the responder analysis against results from the independent physician review panel of photos, which had been conducted in the previous study. This second analysis indicated that 77.2% (44/57) of subjects exhibited a \geq 20 mm² area reduction in the submental and neck tissue. Of those 44 subjects, 42 (95.5%) were correctly identified by the physician panel as having a visible response.

Summary of Clinical Study Publications

A review of clinical publications revealed 4,792 cryolipolysis treatments during clinical studies. From these studies, we compiled the numbers of treatments in several anatomical areas: 1,695 treatments in the abdomen, 1,987 treatments in the flanks, 501 treatments in the back, 323 treatments in the inner thigh, 150 treatments in the lateral thigh, 3 treatments in the anterior thigh, 119 treatments in the submental area, and 14 treatments in the banana roll region.

Efficacy was measured by several techniques including ultrasound and caliper measurements, circumferential measurements, 3D quantification of volume reduction, and blinded, independent review of clinical photographs. Based on the compilation of data from these studies, the overall mean ultrasound fat layer reduction ranged from 10.3 to 25.5% and 1.9 to 8.3 mm.

Compiled mean caliper fat layer reduction ranged from 14.7 to 23.0%. Single studies showed mean 0.9 cm circumferential reduction in the inner thigh, 2.4 cm circumferential reduction in the flanks, 6.8 cm circumferential reduction in the abdomen, and 39.6 cm³ volumetric reduction in the flanks.

Based on the compilation of these various studies, the overall mean ultrasound fat layer thickness reduction was 20.6% and 3.9 mm. Compiled mean caliper fat layer reduction was 22.3%. The independent photo review was 89.7% correct, on average.

As shown by multiple clinical studies submitted for clearance to the agency, the summary of published data shows a similarly high safety and efficacy profile for the cryolipolysis procedure. Common procedural side effects include erythema, bruising, and numbness, which typically resolve within one month of treatment. Based on the literature review, 6 cases would be considered serious adverse events. These serious adverse events include three cases of paradoxical hyperplasia in the abdomen, one case of paradoxical hyperplasia in the abdomen, back, and flanks, one case of contour irregularity in the abdomen, and one case of contour irregularity in the flank. For 4,792 treatments in published studies, the incidence of serious adverse events is very low (0.13%). Given the fact that 76.8% of treatments were to the abdomen and flanks, this incidence rate shows no clear indication of treatment site specificity.

The clinical publications indicate that cryolipolysis is a safe and effective non-surgical procedure for subcutaneous fat reduction.

Paradoxical Hyperplasia Literature Review

A literature review of scientific publications conducted in 2023 identified 55 patients diagnosed with Paradoxical Hyperplasia following CoolSculpting where varying amounts of patient level information was included.³³⁻⁵⁴

In 8 cases where the information was reported, the mean time between PH onset of symptoms/ diagnosis to time where PH growth appeared to have stabilized or ceased enlarging was 6.4 months*.

Liposuction was the most documented treatment for PH correction, reported in 39 of the 55 cases. Other corrective treatments were used in 6 cases. In the remaining cases, 6 reported no elected treatment and 4 were either unknown or to be confirmed at the time of publication.

*Note: Onset time calculations varied from publication to publication. Typically, it was defined from time of first or last CoolSculpting treatment to time of PH symptom development or clinical diagnosis. These timepoints can differ significantly considering timeframes between first and last CoolSculpting treatment. Additionally, factors such as if the formal diagnosis is delayed by either the patient not seeking immediate examination or if a clinical referral is required to confirm the diagnosis.

Summary of Clinical Study Publications for the Submental and Submandibular Areas

Six clinical publications reported safety and effectiveness of 228 cryolipolysis treatments in 102 patients to include 89 patients with a Body Mass Index (BMI) of up to 46.2 and 27 patients treated in the submental and submandibular areas.

Literature review of cryolipolysis indicates that clinicians are currently treating below the entire mandible, including both the submental and submandibular areas, in order to achieve best aesthetic outcome. See Table 29, which summarizes the applicator placement methods tabulated from the six publications. Two applicator placement approaches are identified: single cycle placed in the center submental area, as well as two cycles covering the bilateral submandibular area, with a 20 - 30% overlap in the center submental area. demonstrates a typical two-cycle placement method treating submental and submandibular areas.

Reported safety included common procedural side effects such as erythema, bruising, numbness, edema, blanching, tingling, increased sensitivity, itching, pigmentation changes, tenderness, and hoarseness, typically resolving within one month of treatment. It is believed that these side effects are not specifically quantified and reported in all publications because they are expected, self-resolving, and considered minor; thus, reports of erythema, bruising, pain, and transient numbness are likely under-reported. From the publications that reported a total of 228 treatment cycles, the most common side effects at 1-week post-treatment were numbness (105 reports), tingling (24), edema (9), and erythema (3 reports).

Several techniques measured effectiveness, techniques including ultrasound measurement, caliper measurement, Magnetic Resonance Imaging (MRI), three-dimensional (3D) quantification of volume reduction, patient satisfaction, and blinded, independent review of clinical photographs. The mean ultrasound measurement of fat layer reduction was 2.4 mm with a range from 2.0 to 2.8 mm. The mean caliper measurement of fat layer reduction was 3.17 mm (around 33%) with a range from 2.3 to 4.0 mm. The single study using MRI imaging showed mean reduction of 1.78 mm or 17% subcutaneous fat layer reduction. The 3D imaging showed a mean calculated reduction of 8.5 mL fat volume, and calculated reduction in submental laxity by 2.25 mm. Three-dimensional volumetric measurement showed a fat reduction of 4.82 cm³. Blinded, independent photo review was conducted in several studies with correct identification of baseline photographs ranging from 60% to 91%, averaging 77%. Patient satisfaction ranged from 80% to 93%, averaging 85%.

There were no device or procedure-related serious adverse events related to treatment of the submental and submandibular areas in the six publications.

Reference	Treatment Area	Placement of the Applicator	Treatment Cycles (n)	
Bernstein & Bloom, 2017	Submental and submandibular areas	Bilateral treatment cycles with 20% overlap in the center of the submental area.	52	
	ulouo	Single cycle placed in the center submental area.	2	
Kilmer, Burns, & Zelickson, 2016	Submental area	Single cycle placed in the center submental area.	119	
Leal Silva, Hernandez, Vazquez, Leal Delgado, & Blanco, 2017	Submental area	Single cycle placed in the center submental area.	30	
Lee, Ibrahim, Arndt, & Dover, 2018	Submental and submandibular areas	Bilateral treatment cycles with 30% overlap in the center of the submental area. Applicator is placed 1 to 2 cm from inferior aspect of mandible, in sequence.	2	
Li, DaSilva, Canfield, & McDaniel, 2018	Submental and submandibular	Single cycle placed in the center submental area.	1	
	areas	Bilateral treatment cycles with overlap in the center of the submental area.	2	
Suh et al., 2018	Submental and submandibular areas	Bilateral treatment cycles with 30% overlap in the center of the submental area.	20	

Table 29: Applicator Placement Methods	\$
--	----

References

Published papers

- Bernstein EF, Bloom JD. Safety and Efficacy of Bilateral Submental Cryolipolysis With Quantified 3-Dimensional Imaging of Fat Reduction and Skin Tightening. JAMA Facial Plast Surg. 2017; 19(5), 350-357.
- 2. Leal Silva H, Hernandez EC, Vazquez MG, Leal Delgado S, Blanco AP. Noninvasive submental fat reduction using colder cryolipolysis. J Cosmet Dermatol. 2017; 1-6.
- 3. Lee NY, Ibrahim O, Arndt KA, Dover JS. Marginal Mandibular Injury After Treatment With Cryolipolysis. Dermatol Surg. 2018; 1-3.

- 4. Li MK, DaSilva D, Canfield D, McDaniel DH. Use of 3-Dimensional Imaging in Submental Fat Reduction After Cryolipolysis. Dermatol Surg. 2018; 889-892.
- 5. Suh DH, Park JH, Jung HK, Lee SJ, Kim JH, Ryu JH. Cryolipolysis for submental fat reduction in Asians. Journal of Cosmetic and Laser Therapy. 2018; 24-27.
- 6. Kilmer SL, Burns AJ, Zelickson BD. Safety and efficacy of cryolipolysis for non-invasive reduction of submental fat. Lasers Surg Med. 2015 Nov 26.
- 7. Seaman SA, Tannan SC, Cao Y, Peirce SM, Gampper TJ. Paradoxical Adipose Hyperplasia and Cellular Effects after Cryolipolysis: A Case Report. Aesthet Surg J. 2016 Jan; 36(1):NP6-NP13.
- 8. Keaney TC, Gudas AT, Alster TS. Delayed Onset Pain Associated With Cryolipolysis Treatment: A Retrospective Study With Treatment Recommendations. Dermatol Surg. 2015 Nov; 41(11):1296-9.
- 9. Stefani WA. Adipose Hypertrophy Following Cryolipolysis. Aesthet Surg J. 2015 Sep; 35(7):NP218-20.
- 10. Mahmoud ELdesoky MT, Mohamed Abutaleb EE, Mohamed Mousa GS. Ultrasound cavitation versus cryolipolysis for non-invasive body contouring. Australas J Dermatol. 2015 Aug 24.
- 11. Wanitphakdeedecha R, Sathaworawong A, Manuskiatti W. The efficacy of cryolipolysis treatment on arms and inner thighs. Lasers Med Sci. 2015 Nov; 30(8):2165-9.
- Garibyan L, Cornelissen L, Sipprell W, Pruessner J, Elmariah S, Luo T, Lerner EA, Jung Y, Evans C, Zurakowski D, Berde CB, Anderson RR. Transient Alterations of Cutaneous Sensory Nerve Function by Noninvasive Cryolipolysis. J Invest Dermatol. 2015 Nov; 135(11):2623-31.
- Singh SM, Geddes ER, Boutrous SG, Galiano RD, Friedman PM. Paradoxical adipose hyperplasia secondary to cryolipolysis: An underreported entity? Lasers Surg Med. 2015 Aug; 47(6):476-8.
- 14. Zelickson BD, Burns AJ, Kilmer SL. Cryolipolysis for safe and effective inner thigh fat reduction. Lasers Surg Med. 2015 Feb; 47(2):120-7.
- 15. Stevens WG, Bachelor EP. Cryolipolysis conformable surface applicator for non-surgical fat reduction in lateral thighs. Aesthet Surg J. 2015 Jan; 35(1):66-71.
- 16. Carruthers J, Stevens WG, Carruthers A, Humphrey S. Cryolipolysis and skin tightening. Derm Surg. 2014 Dec; 40 Suppl 12:S184-9.
- 17. Bernstein EF, Bloom JD, Basilavecchio LD, Plugis JM. Non-invasive fat reduction of the flanks using a new cryolipolysis applicator and overlapping, two-cycle treatments. Lasers Surg Med. 2014 Dec; 46(10):731-5.
- 18. Boey GE, Wasilenchuk JL. Fat Reduction in the Inner Thigh Using a Prototype Cryolipolysis Applicator. Dermatol Surg. 2014; 40(9):1004-9.
- 19. Stevens WG. Does Cryolipolysis Lead to Skin Tightening? A First Report of Cryodermadstringo. Aesthet Surg J. 2014; 34(6): NP32-NP34.
- Sasaki GH, Abelev N, Tevez-Ortiz A. Noninvasive Selective Cryolipolysis and Reperfusion Recovery for Localized Natural Fat Reduction and Contouring. Aesthet Surg J. 2014 Mar; 34(3):420-31.

- Garibyan L, Sipprell WH 3rd, Jalian HR, Sakamoto FH, Avram M, Anderson RR. Three-Dimensional Volumetric Quantification of Fat Loss Following Cryolipolysis. Lasers Surg Med. 2014 Feb; 46(2):75-80.
- 22. Jalian HR, Avram MM, Garibyan L, Mihm MC, Anderson RR. Paradoxical Adipose Hyperplasia after Cryolipolysis. JAMA Dermatol. 2014 Mar; 150(3):317-9.
- Boey GE, Wasilenchuk JL. Enhanced Clinical Outcome with Manual Massage Following Cryolipolysis Treatment: A 4-Month Study of Safety and Efficacy. Lasers Surg Med. 2014 Jan; 46(1):20-6.
- 24. Stevens WG, Pietrzak LK, Spring MA. Broad Overview of a Clinical and Commercial Experience with CoolSculpting. Aesthet Surg J. 2013 Aug 1; 33(6):835-46.
- 25. Dierickx CC, Mazer JM, Sand M, Koenig S, Arigon V. Safety, Tolerance, and Patient Satisfaction With Noninvasive Cryolipolysis. Dermatol Surg. 2013 Aug; 39(8):1209-16.
- 26. Bernstein EF. Longitudinal Evaluation of Cryolipolysis Efficacy: Two Case Studies. J Cosmet Dermatol. 2013 Jun; 12(2):149-52.
- 27. Kotlus BS, Mok C. Evaluation of Cryolipolysis for Subcutaneous Fat Reduction. Am J of Cosmet Surg. 2013; 30(2), 89-93.
- 28. Lee, J. Clinical Efficacy of Fat Reduction on the Thigh of Korean Women through Cryolipolysis. Obes Weight Loss Ther 2013, 3:6.
- 29. Shek SY, Chan NPY, Chan HL. Non-Invasive Cryolipolysis for Body Contouring in Chinese a First Commercial Experience. Lasers Surg Med. 2012 Feb; 44(2):125-30.
- 30. Brightman L, Geronemus R. Can Second Treatment Enhance Clinical Results in Cryolipolysis? Cosmet Dermatol. 2011; 24(2):85-88.
- Klein K, Zelickson B, Riopelle JG, Okamoto E, Bachelor EP, Harry RS, Preciado JA. Non-Invasive Cryolipolysis for Subcutaneous Fat Reduction Does Not Affect Serum Lipid Levels or Liver Function Tests. Lasers Surg Med. 2009 Dec; 41(10):785-90.
- 32. Coleman SR, Sachdeva K, Egbert BM, Preciado J, Allison J. Clinical Efficacy of Noninvasive Cryolipolysis and Its Effects on Peripheral Nerves. Aesthetic Plast Surg. 2009 Jul; 33(4):482-8.

Paradoxical hyperplasia literature review papers

- 33. Jalian HR, Avram MM, Garibyan L, et al. Paradoxical adipose hyperplasia after cryolipolysis. JAMA Dermatol. 2014;150(3):317-9.
- Macedo O, Chaim CB. Case report of a rare side effect associated with cryolipolysis [abstract]. Rosemont, IL: JAAD; 2014 [cited 2024 Feb 19]. Available from: https://www.jaad.org/article/S0190-9622(14)00809-3/abstract.
- 35. Singh SM, Geddes ER, Boutrous SG, et al. Paradoxical adipose hyperplasia secondary to cryolipolysis: An underreported entity? Lasers Surg Med. 2015;47(6):476-8.
- 36. Stefani WA. Adipose Hypertrophy Following Cryolipolysis. Aesthet Surg J. 2015;35(7):NP218-20.
- 37. Munavalli GS, Panchaprateep R. Cryolipolysis for Targeted Fat Reduction and Improved Appearance of the Enlarged Male Breast. Dermatol Surg. 2015;41(9):1043-51.

- Kelly E, Rodriguez-Feliz J, Kelly ME. Paradoxical Adipose Hyperplasia after Cryolipolysis: A Report on Incidence and Common Factors Identified in 510 Patients. Plast Reconstr Surg. 2016;137(3):639e-40e.
- 39. Seaman SA, Tannan SC, Cao Y, et al. Paradoxical Adipose Hyperplasia and Cellular Effects After Cryolipolysis: A Case Report. Aesthet Surg J. 2016;36(1):NP6-13.
- 40. Sasaki GH. Reply: Cryolipolysis for Fat Reduction and Body Contouring: Safety and Efficacy of Current Treatment Paradigms. Plast Reconstr Surg. 2016;137(3):640e-1e.
- 41. Karcher C, Katz B, Sadick N. Paradoxical Hyperplasia Post Cryolipolysis and Management. Dermatol Surg. 2017;43(3):467-70.
- 42. Friedmann DP, Buckley S, Mishra V. Paradoxical Adipose Hyperplasia After Cryoadipolysis Refractory to Tumescent Liposuction. Dermatol Surg. 2017;43(8):1103-5.
- 43. Kelly ME, Rodriguez-Feliz J, Torres C, et al. Treatment of Paradoxical Adipose Hyperplasia following Cryolipolysis: A Single-Center Experience. Plast Reconstr Surg. 2018;142(1):17e-22e.
- 44. Stroumza N, Gauthier N, Senet P, et al. Paradoxical Adipose Hypertrophy (PAH) After Cryolipolysis. Aesthet Surg J. 2018;38(4):411-7.
- 45. Vogel JE. Comments on "Paradoxical Adipose Hypertrophy (PAH) After Cryolipolysis". Aesthet Surg J. 2018;38(9):NP135-NP7.
- 46. Ward CE, Li JY, Friedman PM. ATX-101 (Deoxycholic Acid Injection) for Paradoxical Adipose Hyperplasia Secondary to Cryolipolysis. Dermatol Surg. 2018;44(5):752-4.
- 47. Hu Lingling SW. A case of paradoxical adipose hyperplasia following cryolipolysis. Chinese J Dermatol. 2019;52(2):120-1.
- 48. Khan M. Complications of Cryolipolysis: Paradoxical Adipose Hyperplasia (PAH) and Beyond. Aesthet Surg J. 2019;39(8):NP334-NP42.
- 49. Nikolis A, Enright KM. A Multicenter Evaluation of Paradoxical Adipose Hyperplasia Following Cryolipolysis for Fat Reduction and Body Contouring: A Review of 8658 Cycles in 2114 Patients. Aesthet Surg J. 2021;41(8):932-41.
- 50. Franzoni DV, Al-Hamad Daubs M, Lyons ME, et al. Submental Paradoxical Adipose Hyperplasia Following Cryolipolysis: A Report and Management Recommendations. Facial Plast Surg Aesthet Med. 2021.
- 51. Moustafa F, Christman M, Zachary C, et al. Paradoxical Hyperplasia After Cryolipolysis in 2 Patients With Diabetes on Insulin Pumps. Dermatol Surg. 2021;47(6):868-9.
- 52. Cox EA, Nichols DS, Riklan JE, et al. Characteristics and Treatment of Patients Diagnosed With Paradoxical Adipose Hyperplasia After Cryolipolysis: A Case Series and Scoping Review. Aesthet Surg J. 2022;42(12):NP763-NP74.
- 53. Hedayati B, Juhasz M, Chu S, et al. Adverse Events Associated With Cryolipolysis: A Systematic Review of the Literature. Dermatol Surg. 2020;46 Suppl 1:S8-S13.
- 54. Ho D, Jagdeo J. A Systematic Review of Paradoxical Adipose Hyperplasia (PAH) Post-Cryolipolysis. J Drugs Dermatol. 2017;16(1):62-7.

Published abstracts

- 1. Loss L. Cryolipolysis Treatment of a Lipoma: A Case Study. Lasers Surg Med. 2014; 45(4):364.
- 2. Burns AJ, Saltz R, Stevens G, Kilmer S. Cryolipolysis Using the Treatment to Transformation Approach: One Year Follow Up. Lasers Surg Med. 2014; 46(S25):18.
- 3. Jalian HR, Tam J, Garibyan L, Anderson RR. Selective Cryolysis of Sebaceous Glands. Lasers Surg Med. 2014; 46(S25):2.
- 4. Macedo O, Corradini C, Matayoshi L. Cryolipolysis Treatment for Subcutaneous Fat Layer Reduction. Journal of the American Academy of Dermatology. 2012; 66(4):Suppl. 1: AB25.
- 5. Mayoral F, Kaminer M, Kilmer S, Weiss R, Zelickson B. Effect of Multiple Cryolipolysis Treatments on the Abdomen. Lasers Surg Med. 2012; 44(S24):15.
- Dover J, Kaminer M, Teahan M, Barrett L. Patient Satisfaction at 2 and 6 Months after a Single Non-Invasive Cryolipolysis Treatment for Subcutaneous Fat Layer Reduction. Lasers Surg Med. 2011; 43(S23):968.
- Kim H, Suh D, Park J, Rhue J, Lee S, Song K, Shin M, Ok C. Clinical Evaluation of a Non-Invasive Cryolipolysis for the Treatment of Subcutaneous Fat Removal in Korean Patients. Lasers Surg Med. 2011; 43(S23):973.
- Burns JA, Allison J, Bachelor E, Dover J, Coleman S, Fitzpatrick R, Garden J, Geronemus R, Goldberg D, Kilmer S, Kramer S, Levinson M, Mayoral F, Okamoto E, Tanzi E, Riopelle J, Weiss R, Zelickson B. Analysis of Side Effects of Non-Invasive Cryolipolysis for Subcutaneous Fat Layer Reduction – Interim Report from Controlled Clinical Trials. Lasers Surg Med. 2010; 42(S22):21.
- Dover J, Burns J, Coleman S, Fitzpatrick R, Garden J, Goldberg D, Geronemus R, Kilmer S, Mayoral F, Tanzi E, Weiss R, Zelickson B. A Prospective Clinical Study of Noninvasive Cryolipolysis for Subcutaneous Fat Layer Reduction – Interim Report of Available Subject Data. Lasers Surg Med. 2009; 41(S21):43.
- Kaminer M, Weiss R, Newman J, Allison J. Visible Cosmetic Improvement with Cryolipolysis: Photographic Evidence. Presented at the Annual Meeting of the American Society for Dermatologic Surgery, 2009, Phoenix, AZ.

10/2024