

# Tumescent Liposuction

Standards & Guidelines

October 2015 v5



College of  
Physicians  
& Surgeons  
of Alberta

Serving the public by guiding the medical profession

*You may download, print or make a copy of this material for your noncommercial personal use. Any other reproduction in whole or in part requires written permission from the College of Physicians & Surgeons of Alberta (CPSA) and the material must be credited to the CPSA.*

<b>Revision date:</b>	<b>October 2015 v5</b>
<b>Approval date:</b>	September 1999
<b>Originating Committee:</b>	Advisory Committee on Non-Hospital Surgical Facilities

## Table of Contents

<b>1.0</b>	<b>Preamble.....</b>	<b>1</b>
<b>2.0</b>	<b>Training &amp; Experience.....</b>	<b>2</b>
<b>3.0</b>	<b>Practice Standards .....</b>	<b>4</b>
3.1	Physician Qualifications.....	4
3.2	Assistants' Qualifications.....	4
3.3	Pre-Operative Evaluation .....	5
3.4	Intraoperative Management.....	5
3.5	Discharging the Patient .....	6
3.6	Documentation of Care .....	6
3.7	Quality Assurance .....	7

## 1.0 Preamble

This document addresses privileges and standards for Tumescent Liposuction, and is intended to supplement the College's standards for *Non-Hospital Surgical Facilities*.

Definition: Tumescent liposuction is a specific method for suction lipolysis, which relies on local anesthesia by subcutaneous infiltration of large volumes of dilute lidocaine and epinephrine. Oral or IV sedation or general anesthesia may be used to lessen patient anxiety and awareness but should not be used as a substitute for the use of sufficient tumescent infiltration to induce anesthesia in the surgical field.

## 2.0 Training & Experience

The minimum training necessary in tumescent liposuction depends on the physician's base specialty and ongoing surgical experience. Not every physician is a candidate for privileges in tumescent liposuction. Particularly those who are not surgical specialists shall be required to provide evidence of training and satisfactory performance of surgical procedures and in tumescent liposuction.

- 2.1 Eligibility for privileges in liposuction shall include a minimum of one year of general surgical or dermatological surgery training in an approved residency training program, plus:
  1. Evidence of adequate training in tumescent liposuction during a residency training program; or
  2. Completion of postgraduate training in tumescent liposuction commensurate with the background of surgical training and experience of the applicant which is acceptable to the College<sup>1</sup>.
- 2.2 Conditions may be attached to privileges in tumescent liposuction, restricting physicians to one or more of the following:
  1. Specified anatomical sites;
  2. Maximum volume of aspirate;
  3. Type of anesthesia (e.g. patient awareness to be maintained at all times);
  4. Technique (e.g. not using internal ultrasound);
  5. Maintenance of competence requirements (e.g. number of procedures to remain active; peer review requirements; CME requirements); and
  6. Periodic practice review.
- 2.3 The College may require a preliminary assessment prior to approving surgical privileges when there is otherwise insufficient information about the physician's surgical training, experience or performance to satisfy the College as to the physician's surgical skill.

---

<sup>1</sup> A satisfactory postgraduate training program in tumescent liposuction shall be given by preceptors with credentials acceptable to the College, and include:

- a) The selection of procedures;
- b) The preparation of patients;
- c) Maintenance of asepsis in non-hospital settings;
- d) Intra-operative patient monitoring;
- e) Post-operative care and follow-up;
- f) Quality improvement in surgical services; and
- g) Hands-on training in the technique of tumescent liposuction.

2.4 Procedures shall be restricted to the anatomical areas for which physicians have been trained and approved. Those areas will be specified from the following list:

1. face
2. neck
3. arms
4. inner thighs
5. outer thighs
6. hips
7. flanks
8. abdomen
9. breasts (for fatty gynecomastia)
10. knees
11. calves & ankles

## 3.0 Practice Standards

The following requirements complement the College's *Standards for Non-Hospital Surgical Facilities*.

### 3.1 Physician Qualifications

3.1.1 All physicians who perform tumescent liposuction shall:

1. Hold privileges in tumescent liposuction approved by the College,

- and -

2. Hold active certification in ACLS,

- or -

Perform this procedure only if a physician with current certification in ACLS or an anesthesiologist is immediately available and has privileges in the facility; and

3. Participate in mock drills for the management of life threatening emergencies related to the procedure at least every six months.

### 3.2 Assistants' Qualifications

3.2.1 At least one assistant who is immediately available shall be a registered nurse or a physician.

3.2.2 At least one assistant who is continuously in attendance on the patient shall be trained and knowledgeable of:

1. The procedure of liposuction;
2. The equipment used during liposuction;

and skilled in:

3. Monitoring vital signs;
4. Maintaining aseptic fields and instruments;
5. Assisting in emergency procedures including the use of a bag-valve-mask device; and
6. Cardiopulmonary resuscitation.

## 3.3 Pre-Operative Evaluation

- 3.3.1 A pre-operative assessment shall be completed and recorded as contained in the *Standards for Non-Hospital Surgical Facilities*. In addition:
1. Appropriate indications shall be recorded in the clinical record which may include:
    - a. The removal of localized or regional deposits of adipose tissue for the purpose of body contouring;
    - b. The treatment of specific conditions of adipose and subcutaneous tissues but shall not include the management of obesity.
  2. Known contraindications shall be ruled out and their absence noted in the clinical record, including:
    - a. Significant medical conditions that may be aggravated by surgery or anesthesia
    - b. Coagulopathies
    - c. Medications that impair hemostasis, or that interact adversely with epinephrine
    - d. Local conditions of skin or subcutaneous tissue that make liposuction hazardous (e.g. certain scars, hernias and injuries)
    - e. Significant skin laxity
    - f. morbid obesity
    - g. Psychological contraindications such as mood disorders, thought disorders, severe anxiety, or unrealistic expectations
- 3.3.2 Informed consent shall include the provision of written educational material and discussion with the patient that includes the following:
1. The alternatives to liposuction
  2. All usual and occasional side effects and complications
  3. All potentially life-threatening complications
  4. The possibility of a poor cosmetic outcome
  5. The training and experience of the physician

## 3.4 Intraoperative Management

- 3.4.1 All solutions shall be prepared, labeled and signed by a qualified RN, physician or pharmacist, by aseptic technique, and from a written protocol.
- 3.4.2 In addition to the anesthesiologist or physician with ACLS, at least one other person who is immediately available within the facility shall have current certification in basic cardiopulmonary resuscitation.
- 3.4.3 Intravenous access shall be initiated prior to the procedure and maintained throughout.
- 3.4.4 Infiltration and aspiration shall be performed by the physician with privileges except where the College has approved another physician to perform infiltration of tumescent anesthesia solution.
- 3.4.5 Patients undergoing tumescent liposuction shall be continuously evaluated with at least the following:
1. Visualization of some portion of the patient, other than the operative site, under appropriate lighting;
  2. Pulse oximeter with audible signal recognition;
  3. Apparatus to measure blood pressure with an appropriately sized cuff.

3.4.6 In addition to the above, devices or drugs which shall be immediately available include:

1. A stethoscope;
2. A source of oxygen;
3. A means of delivering positive pressure oxygen such as a self-inflating bag-value-mask device;
4. An emergency resuscitation cart which includes:
  - a. A cardiac monitor with defibrillator
  - b. Endotracheal tubes, stylets, airways and face masks in a selection of sizes appropriate to the expected range of patient sizes and ages
  - c. Two functioning laryngoscopes and a variety of sizes of laryngoscope blades
  - d. Magill forceps
  - e. IV supplies and accessory equipment such as syringes, needles, ECG leads, sponges, tape, etc. These shall be stored in an orderly manner and be easily accessible
  - f. Cricothyrotomy kit
  - g. A backboard for CPR if the surgical chair/table or recovery stretcher are not suitable; and
  - h. Drugs listed in Appendix A of the Standards & Guidelines document for “Facilities Providing Only Sedation and/or Retrobulbar Anesthesia”

## 3.5 Discharging the Patient

3.5.1 The facility shall comply with the College’s standards for discharging patients after sedation or anesthesia (*Standards for Non-Hospital Surgical Facilities*).

## 3.6 Documentation of Care

3.6.1 The clinical records shall meet the College’s standards for clinical records (see *Standards for Non-Hospital Surgical Facilities*). In addition, the clinical records shall contain:

1. The patient’s pre-operative weight and height;
2. The volumes of tumescent fluid infused;
3. The volumes of intravenous fluid infused;
4. The volumes of fat and fluid extracted;
5. The size of the cannulas used
6. The anatomical sites treated;
7. The use of external or internal ultrasonic techniques, if any;
8. The use of drains, if any;
9. Complications encountered, if any;
10. Postoperative garments used, if any;
11. Pre-operative photographs; and
12. Post-operative photographs and weight at follow-up.

## 3.7 Quality Assurance

- 3.7.1 The outcomes of tumescent liposuction shall be monitored and recorded and made available for inspection by the College that include but are not limited to:
1. Patient satisfaction;
  2. Unexpected incidents;
  3. Repeat procedures; and
  4. Complications.
- 3.7.2 There shall be a documented policy and procedure in place for handling patient concerns/complaints.
- 3.7.3 The Medical Director shall ensure that the process for lodging concerns is readily available and apparent to patients and the public.