

A Stunning Matter

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שאלה

Is it permitted to stun/bolt an animal after שחיטה? (Stunning is accomplished by a low level electric shock which brings the animal to a reversible state of unconsciousness, while bolting is stunning the animal by means of a penetrating captive bolt.)

תשובה

In order to address this problem we must delve into some areas that bear on this:

- 1) What is the purpose of שחיטה?
- 2) Is stunning permitted before שחיטה?
- 3) What are the problems involved with post-שחיטה stunning?

The Purpose of שחיטה

The Torah does not specify how to slaughter an animal. The biblical basis for שחיטה is, "ובחת מבקרדך": "Thou shall kill of the herd and of the flock which the Lord has given you as I have commanded you."¹ This verse implies an oral tradition of the laws of slaughtering. The laws are detailed in B. Hullin and in the Codes.² The exact method is not in question; that is agreed upon. What is questionable is the purpose of שחיטה. Is it to simply kill the animal or is its purpose to remove as much blood as possible?

The Rambam states:

ואסור לאכול מן השחוטה כל זמן שהיא מפרכסת והאוכל ממנה קודם שתצא נפשה עובר בלא תעשה והרי הוא בכלל לא תאכלו על הדם ואינו לוקה ומותר לחתוך ממנה אחר שחיטה קודם שתצא נפשה ומולחו יפה יפה ומדיחו יפה יפה ומניחו עד שתמות ואח"כ יאכלנו.

And it is prohibited to eat from a properly slaughtered animal as long as the animal is moving (convulsively). One who eats from it before the animal dies transgresses a negative prohibition which is included in the general rule of do not eat of the blood, and the transgressor is not punished with lashes. It is permissible to cut some meat from the animal after it has been slaughtered and before the animal dies, it should be

The Committee on Jewish Law and Standards of the Rabbinical Assembly provides guidance in matters of halakhah for the Conservative movement. The individual rabbi, however, is the authority for the interpretation and application of all matters of halakhah.

salted very well and soaked very well and then set aside until the animal dies and then it may be eaten.³

It seems that according to the Rambam the purpose of שחיטה is to make sure that the animal dies quickly and to ensure that one does not eat meat from a live animal (אבר מן החי). Since the blood of the animal is its life, כי הדם הוא הנפש, one must be careful to wait until the animal has died and that as much of the blood as possible is removed. After salting and soaking, then the meat is permitted, even though it was taken from the animal before it died. Rashi⁴ states that the purpose of שחיטה is to permit the eating of the flesh or to remove the animal from the category of נבילה, an animal that died a natural death, which is prohibited. שחיטה is not the act of killing the animal, שחיטה removes the prohibition of אבר מן החי, eating from a live animal.

The derivation of the laws of שחיטה found in the Talmud state:

אמר רב כהנא מנין לשחיטה שהיא מן הצואר שנאמר ושחט ממקום ששח
חטהו.

Rav Kahana said: From where do we derive that slaughter must be performed at the neck? From the verse “And he shall slaughter the bullock,” that is to say he shall cleanse (שח) it from blood in the place where it bends down (שח).⁵

Blood is needed for sprinkling on the altar when an animal is sacrificed. In the case of fowl, where breaking the neck would kill the fowl, שחיטה was required to ensure that blood did not remain in the body, but not to kill.

Rashi states:

ונכרי לאו בשחיטה תלי היתר אכילה דידיה שלא הזכרה אצלו ואבר מן החי
נאסר להן ואין יוצאה להן מידי אבר מן החי עד שתמות אבל לישראל יצתה
מידי אבר מן החי על ידי שחיטתה.

The permission to eat meat for a gentile is not dependent upon שחיטה because שחיטה is not mentioned for gentiles in the Torah. However, eating meat cut from a live animal is prohibited to them, and the only way to ensure that no prohibition is transgressed is to kill the animal. But for Jews it is no longer considered a limb from a live animal if שחיטה has been performed (even if the animal is not dead).⁶

אמר שמואל משום ר' חייא השובר מפרקתה של בהמה קודם שתצא נפשה הרי
זה מכביד את הבשר וגוזל את הבריות ומבליע דם באיברים. איבעיא להו היכי
קאמר מכביד את הבשר וגוזל את הבריות משום דמבליע דם באיברים הא
לדידיה שפיר דמי (משום מליחה) או דלמא לדידיה נמי אסיר (רש"י ד"ה או
דלמא – ותרתני איסורי קחשיב חדא דגזל את הבריות וחדא דמבליע דם ושוב
אינו יוצא ואוכל דם) תיקו.

Samuel said in the name of Rabbi Hiyya, “If a man breaks the neck bone of an animal (after slaughtering) before the animal died, he thereby makes the meat heavy (because the animal cannot expel the blood and the blood remains in the limbs), robs mankind (sells meat with more than the usual amount of blood), and causes the blood to remain in the limbs.” It was asked: What is the meaning? Is it that he makes the meat heavy and thereby robs mankind by causing the blood to remain in the limbs but where only he himself is concerned it is permitted (since he himself is using it and salting would be

sufficient), or perhaps even for himself it is forbidden. (Rashi: And two prohibitions are involved: one is that he robs mankind, and the other is that he causes blood to remain in the limbs and it will not be removable and therefore he eats blood). The question stands.⁷

What is clear from the above is that there is only a ספק, a doubt, if this action renders the meat unfit. Deriving a prohibition based on a ספק is not the strongest of positions and certainly is not required since this text permits the meat after salting.

I. M. Levinger, in his book, *Shechita In The Light Of The Year 2000*⁸, states that the purpose of שחיטה is to inflict as little pain as possible and to render the animal unconscious; it also ensures a complete and rapid draining of the blood from the animal. Therefore there can be no pause (שהיה), hacking (דריסה), burrowing (חלדה), incision through the larynx (הגרמה) or laceration (עקור).

Therefore, according to these sources, the purpose of שחיטה is threefold: to permit the flesh of the animal by removing the flesh from being considered מן החי or נבילה, to cause the draining of the blood, and to inflict as little pain as possible. שחיטה does not kill the animal directly. Death occurs later.

Is Stunning Permitted Before שחיטה?

The purpose of stunning the animal before slaughter is to bring the animal to a reversible state of unconsciousness. The word ‘reversible’ is very important. Only if this condition exists can one use both terms ‘stunning’ and שחיטה as different things.⁹ The question of the permissibility of pre-slaughter stunning was debated by rabbinical authorities during the 1930’s, especially when שחיטה was under attack in Nazi Germany. Rabbi Yehiel Weinberg studied and published (in 1961) a volume dedicated to this issue. In addition to his responsa on the subject, he published the opinions of some fifteen other rabbinic authorities in his שרידי אש, volume 1.¹⁰ As in many cases of difficult halakhic questions, there was disagreement on this issue. On the one side were those who argued that we may not change the method of slaughtering that is part of our oral tradition, and for which many Jews were killed. They also refused to give in to Nazi Germany and, therefore, refused to change.¹¹ On the other hand, there were those who felt that if one could find a way to permit pre-slaughter stunning, thereby enabling kosher meat to be available for observant Jews, it was necessary to do so to help Jews remain healthy, or to prevent them from eating non kosher food.¹²

Rabbi Weinberg found grounds for permitting pre-slaughter stunning:

אמנם הראתי בה פנים להתיר אבל ידעתי מראש כי גאוני ליטא ופולין וגדולי ישראל מנהיגי היהדות החרדית לא יסכימו לעולם להתיר שיש בו משום שינוי אופן השחיטה הנהוג בישראל מדורי דורות ואף אני בעצמי ליבי נקפני לגשת לענין חמור זה של כשרות השחיטה שהוא יסוד היסודות בחיי ישראל.

Indeed, I have shown reasons to permit, but I knew from the beginning that the sages of Lita, Poland, and the great sages of the Haredi community would never agree to permit something that introduces any change in the method of slaughter that has been the rule among Jews for generations, and even I had misgivings about addressing this important and strict issue of ritual slaughter which is at the core of Jewish life.¹³

He continues to say that at the time of publication there is no practical halakhic value to the book since we are no longer living under the rule of Nazi Germany. The reason for publishing the volume is for its historical value.¹⁴ However, the issue did not die. The Swedish Government prohibited slaughter without prior stunning of the animal. New methods were introduced such as a chemical anesthetic, and halakhic opinions on both sides of the issue were published.¹⁵ Obviously, the issue has not disappeared. Today we deal with this issue

not because of an assault on the “humaneness” of שחיטה, but rather for other practical reasons which will be discussed below.

The following are some of the areas that had to be addressed in dealing with the issue of pre-sh’hita stunning:

- 1) מסוכנת — perhaps the animal is dying.
- 2) מסוכנת בידי אדם — the animal is dying due to human causes.
- 3) חשש אינה חיה — perhaps the animal is already dead.
- 4) חשש נפולה — the animal cannot get up and move.
- 5) חשש ריסוק הבהמה ע”י זרם חשמל — the possibility of damaging the animal by means of the stunning.
- 6) חשש הבלעת דם באיברים — blood will be absorbed in the limbs.

These concerns can be divided into two categories:

A. The animal must be alive and healthy before שחיטה. This is why an animal that cannot stand is not fit for שחיטה due to the fact that it may not be able to stand on its own, and therefore is not healthy. (The definition of a healthy animal is one that can stand and moves.)

B. There should not be any pathological-anatomical changes which would render the animal unfit. Therefore, injuries to inner organs which may be caused by stunning have to be taken into consideration.

The biblical prohibition against the eating of blood refers, according to the Rabbis, to the blood issuing forth at the time of שחיטה. Two other types of blood were added later by the rabbis: (1) Blood that is easily removed; (This refers to blood in the heart and other blood vessels. This blood is removed by opening these vessels or by discarding them. In addition, de-veining, the removal of certain arteries and veins, is required to ensure that the blood is removed.) and (2) Blood that is found in the tissues at the time of slaughter which can later exude as free blood. This is removed by soaking and salting. In case of the liver, broiling is required to remove the blood.¹⁶

Rabbi Weinberg discusses these issues and finds grounds for permitting pre-slaughter stunning based upon positions that seem to imply that we are only dealing with חששות (apprehensions or concerns) and not with actual conditions that would render the meat unfit. For example, he says:

הראינו בכמה פנים להתיר בנידון דידן שנופלת הבהמה ע”י המום החושים וכל
אחד מן הטעמים מספיק להוציא מחשש איסור ומכש”כ צירוף כל הטעמים
יחד.

We have shown in a number of ways grounds to permit in our case where the animal falls due to the stunning of its senses, and each one of the reasons is sufficient to remove it from any doubts that would prohibit it. How much the more so when we combine all of these reasons.¹⁷

עכ”פ עלה בידינו לברר בעז”ה שאין הבהמה נעשית טריפה ע”י חולי כללי בגופה
ואף שעל”ז תמות ודאי. ולפי”ז הבהמה שחשמלו אותה קודם שחיטתה ולא מצאו
בשום אבר מאבריה חסרון או לקוי בשעור המטריף ואף שע”י החשמול נתקלקל
דמה או נתרופף מצב בריאותה במידה גדולה כזו שאינה יכולה עוד לחיות —
אינה טריפה ודינה כשאר מסוכנת שמותרת ע”י פרכוס.

For all purposes, we have been able to clarify, with God’s help, that the animal is not rendered unfit due to a general sickness in its body even though it may cause its death. Accordingly, an animal that has been stunned prior to slaughtering and no deficiency

or lack of limbs and organs was found during the examination which would render it unfit, and even if the stunning caused damage to the blood or greatly weakened the health of the animal so that it could not continue to live — it is not unfit (טריפה), and it falls into the category of all other that are dying (מסוכנת) which are permitted if there is some movement of its legs.¹⁸

While most Rabbis opposed Rabbi Weinberg, there were those who accepted his position and implored others to permit pre slaughter stunning:

לכן באתי בזה בשם אלפי משפחות בארצנו להפיל תחנותי לפניכם רבנים נכבדים ומנהיגי ידראל דתסכימו בזמן הקצר ביותר להתיר את הדחיטה אחריההימום על יסוד ראיות ברורות שיש לנו מתורתנו הקדושה להיתירא ואין אף ראייה אחת מעיקר הדין לאיסורא... ועל ידי הסכמתכם להיתירא לשחיטה בתנאים הנ"ל תצילו ראשית את הרוב משארית הפליטה שעוד לא טמא את עצמו באכילת נבלות וטרפות שלא יפנו גם הם עורף לאמונה ודת... ואולי בזכות זה שתזכו את הרבים ותחוסו על ממונם וגופם של אחינו בני ישראל יחוס הקב"ה על עם עני ואביון שניתן בצרה ובשביה ואולי ירחם... וכפי הנראה הרבנים שלא מצאו עוז בנפשם להוציא היתר לא שמו לב לעיקר הזה שיש הבדל בין זרם חזק ובין זרם רפה... הממשלה מסתפקת בזרם רפה וידוע לנו שהבהמות ברובן הגדול עמדו והלכו אחרי ההימום כשאר הבהמות הבריות.

Therefore I have come in the name of thousands of Jewish families in our country to plead before you, honorable Rabbis and leaders, that you quickly agree to permit pre slaughter stunning based upon clear proofs from our holy Torah that permit, and there is not even one proof from our basic laws to prohibit... and by your agreement to permit slaughtering under these conditions you will save, first of all, the majority of the remnant that has not as yet defiled themselves by eating prohibited meat so that they will not turn against our beliefs and religion... and perhaps due to this merit that you will enable the people to eat meat and by taking into consideration the fiscal and physical needs of our brethren, God will take into consideration our poor people who are in dire straits and in servitude and perhaps God will have mercy. ...and it seems that the Rabbis who did not find the courage to permit this type of slaughter did not pay attention to the fact that there is a difference between a strong and weak stunning procedure... the government requires a weak procedure and it is a known fact that the majority of animals stood up and walked after this type of stunning as is the case with all other healthy animals.¹⁹

He goes on to show that animals that have not been stunned have red spots in the brain, and that we are only required to check the lungs and not other organs because there are more problems encountered there than in other organs. Nevertheless, if the lung was lost after the animal was slaughtered, and the lungs cannot be checked, the meat is fit. He argues that just as we are required not to permit that which is prohibited, so we are required not to prohibit that which is permitted — המותר את האסור לאסור את המותר. He quotes other sources that indicate that one must look to find leniencies rather than to prohibit, and that a strict position should not be applied to the community but rather to the individual decisor:

...שכל מורה הוראה צריך אם תבוא איזו שאלה לפניו להטריח את עצמו בתחילה למצוא היתר ואינו רשאי להחמיר על אחרים משום מדת חסידות ופרישות בדבר

That all decisors are required, if a question is posed, to initially try hard to find a way to permit. The decisor is not permitted to impose stringencies on others for the sake of piety or to separate oneself when the stringency is not required by law.²⁰

It is clear from the various positions mentioned above and in Rabbi Weinberg's book that there are grounds to permit stunning before slaughtering. At best we are dealing with a ספק ספיקא (double doubt), and at worst with חששות (apprehensions), which are not actual facts. While there is a position that opposes it for various reasons concerning ספק ספיקא וחששות, the bottom line is that of tendentious reasoning. That is to say, whatever position you choose to follow you can find arguments to support it. For our purposes, the fact that there are grounds that are halakhically reasonable and acceptable to permit stunning prior to שחיטה, as described by the above mentioned authorities, is paramount. The problems involved with pre-sh'hita stunning are more difficult ones than those involved with post-sh'hita stunning. Therefore, the position that permits pre-sh'hita stunning can serve as a kal vahomer argument for the case of post-sh'hita stunning.

Stunning/Bolting after שחיטה

From all of the above, one could automatically permit post-sh'hita stunning based on the permission for pre-sh'hita stunning. Most of the objections do not apply to post-sh'hita stunning, since the purpose of the stunning afterwards is not to bring the animal to a reversible state of unconsciousness; the purpose of post-sh'hita stunning is to prevent blood splash by preventing the rupturing of blood vessels, that is to say, to ensure that the blood stays in the blood vessels so that it does not enter the meat itself. The reason for this is to enable the producer to sell the hind quarter to non kosher suppliers as roasts rather than as ground beef. This brings a higher price for the hind quarter, thereby, lowering the price of the kosher meat. It is a case of של ישראל על ממנוחם, sparing the money of Jews.

Many kosher plants that do not stun have gone out of business because they could not afford the customer complaints caused by slaughter without stunning; they still have to sell the hindquarters on the non-kosher market.²¹ This has led to a reduced number of kosher slaughtering plants which in turn has raised the price of kosher meat.

The only real hesitation concerning post-sh'hita stunning is that of מבליע דם באיברים (causing the blood to be absorbed in the flesh), which is caused by the rupture of the blood vessel. Since the purpose of this type of stunning is to prevent the rupture of the blood vessels, and de-veining, soaking, and salting will eliminate this blood, there is no reason to prohibit this type of stunning.

Post-שחיטה stunning uses a lower electric shock than pre-שחיטה stunning, for its purpose is not to bring the animal into a reversible state of unconsciousness, but only to prevent the rupture of the blood vessels. Therefore, many of the arguments used to prohibit pre-sh'hita stunning, (for example, it may kill the animal, or the animal may not be alive and healthy, or it may damage internal organs) do not apply. Once שחיטה has taken place, there is no question concerning the possibility that the stunning rendered the animal מסוכנת (dying) and not healthy.

Laboratory testing of animals after שחיטה show that an immediate drop in blood pressure takes place (Levinger pp. 39-58), and that very little blood reaches the brain after the carotids have been severed. The heart will pump blood for about 60 seconds (Levinger p.67), thereby helping the flow of blood. The functional ability of the cortex ceases within less than 10 seconds after שחיטה (Levinger p.75), and significant changes are seen in the EEG even during the first seconds after שחיטה (Levinger p.102). Post-שחיטה stunning takes place approximately 5 seconds after שחיטה. After the shohet has completed his job, he moves aside and another worker then stuns the animal. Based on the laboratory results mentioned above, the stunning takes place close to the closing down of the functional ability of the cortex, and prevents blood splash, that is, it

prevents the blood from entering the muscles and causes it to remain in the blood vessels.

The Codes permitted the use of meat cut from the slaughtered animal before the death of the animal as long as it is consumed after the animal dies. That certainly can damage the organs, and yet it is permitted. Therefore, stunning, which by its very nature causes less, if any, damage, should not prohibit the use of the meat after the death of the animal.

The stunning does not impede the blood flow, therefore it fulfills the requirement of not eating דם הנפש (blood issuing forth at the time of slaughter).²² The porging (de-veining, soaking, and salting) takes care of the other blood in the same manner as in animals that did not have post-שחיטה stunning. The purpose of שחיטה is to prevent transgressing the prohibition of מן החי, אבר, and to remove the animal from the category of נבילה.²³ Post-sh'hita stunning doesn't undermine or vitiate these requirements. According to Levinger²⁴, the purpose of שחיטה is to inflict as little pain as possible and to render the animal unconscious. Post-sh'hita stunning does not interfere with these purposes.

Rabbi Moshe Feinstein says that it is permitted to hit the head of the animal some thirty minutes after שחיטה, and this does not cause the blood to remain in the meat (מבליע דם באיברים). The only problem would be if the blow would cause the death of the animal (שבירת מפרקת — breaking the neck), and that would prevent the blood flow. Even according to those who would prohibit the meat if the neck is broken, they prohibit it only if there is no salting and soaking. Others would prohibit it even with salting and soaking, but if the meat were to be cut into smaller pieces and then soaked and salted, the meat would be permitted.

ונמצא שאין אף אחד שאוסר אלא כשנגבב חומרות למינקט חומרא דמר וחומרא דמר ולעשות שיטה חדשה... ובהא דידן אף אם ננקוט חומרא דמר וחומרא דמר ונאסור בשבירת מפרקת ואף בכל קירוב מיתה את הברש לגמרי נמי הא הוא רק בקירוב מיתה שהוא בהכאה המטרפת כגון שנחבסה הגוגלת ע"י זה או שניקב המוח אבל כשלא נעשה שום רושם במוח וגם בגולגולת לא שייך לאסור כלל דאין בזה קירוב מיתה.

And the outcome is that there is no one who prohibits this except if we were to collect stringencies, to take a stringency from one person and one from another person to develop a new point of view.... In our case, even if we were to adopt the stringency of one and the stringency of another and prohibit it because of the breaking of the neck, and in all cases of imminent death we would prohibit the meat completely, this would apply only when death is advanced by a blow that kills, such as crushing the skull by this action, or if the brain was punctured. But when there is no physical sign in the brain and in the skull, there are no grounds for prohibiting, because this does not advance or bring on death.²⁵

It is clear that even when the neck is broken, the meat could be permitted. The problem would be that the killing prevented the blood from flowing because the animal could not continue to move and pump the blood. Post-שחיטה stunning, which does not damage the brain, and helps ensure that there is no blood splash (it keeps the blood in the blood vessels) so that blood is not absorbed into the meat, would be permitted.

In a number of responsa dealing with this issue of stunning/bolting after שחיטה:

כי ההימום יבא תיכף לאחר השחיטה ע"י נקיבת המוח... או ע"י המצאה חדשה בשפוד של ברזל המנקבת המוח וגורמת מיתה פתאומית —

because the stunning will take place immediately after שחיטה by puncturing the brain... or by some new invention with a metal bolt that perforates the brain and causes

sudden death —

various Rabbis permitted these methods. They did so in order to prevent Jews from eating non kosher meat or to prevent the loss of income. Once again, the reasoning is based upon the fact that salting and de-veining will remove whatever blood that did not drain from the animal due to the cessation of movement by the animal, caused by the stunning or bolting.²⁶ While these opinions were not unanimously accepted, nevertheless, the arguments upon which they are based are halakhic and acceptable.

The belief that the captive bolt kills the animal and causes the heart to stop beating is not true. While the animal will be brain dead, the body is still physiologically alive. The heart will finally stop pumping blood when the lungs no longer provide oxygen in the blood.²⁷ Therefore, not only is stunning permitted after שחיטה, but bolting is permitted as well. Neither method will cause הבלעת דם באיברים — absorption of blood in the limbs — but rather prevent blood splash, thereby making it easier to remove that blood by de-veining and salting.

The number of kosher plants in the United States has been declining. If this will increase the availability of kosher meat across the country by increasing the number of kosher plants, and also help to keep the price down (since the hindquarters will be sold as a more expensive cut), we should permit both stunning and bolting after שחיטה has been performed. In fact, this method is used in kosher plants outside the United States.

Summary

- 1) The purpose of שחיטה is to remove the meat from the category of אבר מן החי, to ensure the removal of דם הנפש, and to remove the animal from the category of נבילה.
- 2) Post-שחיטה stunning/bolting ensures that the blood is not absorbed in the flesh (אינו מבליע דם באיברים). The blood can be removed by de-veining, soaking, and salting.
- 3) Meat cut from the animal after שחיטה before the death of the animal is permissible after the death of the animal if soaked and salted.
- 4) There is no reason to combine various stringencies to develop a new approach (כחדא דהיתירא עדיפה).
- 5) This method will help keep the price of kosher meat down since it enables the sale of the hindquarters as non-kosher meat as roast rather than as chopped meat (חס על ממונם של ישראל).
- 6) The purpose of post-שחיטה stunning is not to render the animal unconscious, as is the case in pre-שחיטה stunning; therefore, the level of the shock is less and generally does not cause damage to the animal.
- 7) Post-שחיטה bolting, the shooting of a bolt into the head of the animal instead of just stunning the animal, in order to prevent blood splash, is accepted by some authorities and is actually the practice in some countries. It does not stop the heart from beating and does not reduce the blood flow.
- 8) Post-שחיטה bolting improves safety in the slaughtering process, and will help increase the number of kosher slaughtering plants.

Conclusion

Post-שחיטה stunning and/or bolting is permitted.

Appendix

May 30, 2000

Dear Dr. Rabinowitz:

This letter is in reference to your fax with the statement from Dr. Levinger. Captive bolt stunning of cattle with

a penetrating captive bolt does NOT stop the heart. Even though the animal is brain dead, the body is still physiologically alive. In a regular slaughter plant, the hearts of captive bolt stunned cattle which are not bled often beat for over a minute. The heart finally stops beating because the lungs are no longer providing oxygen to the blood. The heart has to have oxygen to function. However, the heart will beat for a while because there is some oxygen stored in the blood.

Captive bolt stunning of cattle immediately after the throat cut also provides a big safety advantage. Another reason why plants do it is to prevent blood-spotting in the meat. Slaughter without stunning will have two to five times more blood-spotting in the meat compared to captive bolt stunned cattle. The blood-spotting is caused by small broken blood vessels which release blood into the muscle. Plants will stun kosher cattle to prevent thousands of dollars of damage to the hindquarters. Many kosher plants that do not stun have gone out of business because they could not afford the customer complaints caused by slaughter without stunning. They still have to sell the hindquarters on the non-kosher market.

Captive bolt stunning immediately after the throat cut provides the advantage of reducing bleeding inside the muscle, improved safety, and improved animal welfare.

Sincerely,

Temple Grandin, PhD
Assistant Professor
Department of Animal Sciences
Colorado State University

Notes

- 1 דברים יב, כא.
- 2 רמב"ם, הלכות שחיטה, שו"ע יו"ד ס' א-כח.
- 3 רמב"ם, הלכות שחיטה, פ"א הל' ב. שו"ע יו"ד ס' כז ובש"ך שם.
- 4 רש"י חולין כז, א ד"ה חטהטו וד"ה דם הנפש.
- 5 חולין כז, א.
- 6 חולין לג, א ד"ה כדריש לקיש.
- 7 חולין קיג, א.
- 8 Published by Maskil l'David, Jerusalem 1995, pp. 14-15.
- 9 Ibid, p.130.
- 10 שרידי אש, שאלות ותשובות חידושים וביאורים, מוסד הרב קוק, ירושלים, תשכ"א.
- 11 Ibid, pp. 3, 7.
- 12 Ibid, p. 6.
- 13 Ibid.
- 14 Ibid.
- 15 הרב שמעון פדרבוש, בנתיבות התלמוד, מוסד הרב קוק, ירושלים, תשי"ז, עמ' 206-216.
מהרמ"י ברייש חלקת יעקב, יורה דעה ס' א-ב. מהר"י ווייס, מנחת יצחק, חלק שני ס' כז.
For a list of countries where stunning is normally required see Levinger, pp. 133-136.
- 16 Broiling on a flame on a grate non-salted and non-soaked meat permits one to eat the meat as well.
- 17 שרידי אש עמ' פה.
- 18 שם עמ' נט.

- 19 הרב אפרים לאסמנאן, שרידי אש עמ' קכג-קכה.
- 20 שם עמ' קכו.
- 21 See letter from Dr. Temple Grandin dated May 30, 2000, at the end of the responsum.
- 22 See above p. 2.
- 23 See above p. 2.
- 24 See above n. 8.
- 25 שו"ת אגרות משה חלק יו"ד א' סימן כב.
- 26 שו"ת מקדשי השם ח"א (עם הגהות צבי הירש מייזליש סימנים כו-כט).
A collection of responsa by European Rabbis who were killed in the holocaust. Those cited on this issue are Rabbis Ozer Grodozinski, Eliezer Mishel, Judah Zirilsohn and Abraham Horowitz.
- 27 See letter from Dr. Temple Grandin dated May 30, 2000, at the end of the responsum.