ECONOMY CLASS SYNDROME: A FIRST CLASS LIABILITY

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I. INTRODUCTION

Economy Class Syndrome is a condition coined from the cramped seating conditions passengers often experience while riding in coach or economy class on commercial air carriers. Although the condition

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received its name from the economy seating on air carriers, it is by no means limited to economy class air travel.\(^2\)

It is the intention of this article to establish a legal basis by which air carriers will be determined liable to their passengers who develop deep vein thrombosis and, as a result, suffer damages from Economy Class Syndrome. This article will evaluate the individual elements of the Warsaw Convention as they relate to international air carrier liability and the established judicial standards for the elements. After establishing the elements of the tort, it will analyze the factors of Economy Class Syndrome, in conjunction with the elements of the tort, to establish that the air carriers are liable to their passengers for the damages they suffer from the conditions that lead to Economy Class Syndrome. Although the development of Economy Class Syndrome does not qualify as an "accident" under the Warsaw Convention, Article 17, the air carrier is nevertheless liable for damages under Article 25, due to its "willful misconduct" in recklessly and knowingly creating the conditions that result in Economy Class Syndrome.

A. Overview

The purpose of this article is to determine an air carrier's liability for Economy Class Syndrome and to evaluate the damages that occur from it. This article begins with an overview of Deep Vein Thrombosis, the underlying medical condition of Economy Class Syndrome, and the particular conditions that cause it. This is followed by a brief section discussing some of the current events that have raised the public's awareness of Economy Class Syndrome, combined with a background of Deep Vein Thrombosis. The third section covers the Warsaw Convention and how this Treaty affects air carrier liability. This article does not go into explicit detail on the history of the Warsaw Convention or the subsequent amendments made to it in later treaties. These issues have been thoroughly discussed in prior works of other individuals and therefore are not analyzed here.\(^3\) The fourth section discusses the elements of torts in commercial air carrier liability as established by the Warsaw Convention. The fifth section discusses the issue of "willful misconduct,"

\(^2\) Id. (stating the condition is known to result from long periods of inactivity that slows the blood flow, an example of which is the prolonged immobility due to surgery or a limb set in a cast).

and the consequences of knowingly acting with disregard for the passenger's safety, followed by air carrier defenses to such claims. The article concludes by incorporating the tort elements established by the Warsaw Convention, the conditions of Economy Class Syndrome, and the exception created in Article 25, which moves the air carriers limited liability to an unlimited liability.

B. Deep Vein Thrombosis

The medical term for Economy Class Syndrome is Deep Vein Thrombosis (hereinafter DVT). DVT is a pulmonary condition, in which there is a formation of blood clots in the lower extremities of the body after an individual has been immobilized for long periods of time with the legs in a lowered position. This condition may result in a pulmonary embolism, a potentially fatal condition which occurs when a developed blood clot moves through the blood stream and suddenly becomes lodged in the lung arteries, blocking the blood flow to the lung tissue. The symptoms of Economy Class Syndrome may vary from person to person. Some of the more commonly reported symptoms include panic attacks, shortness of breath, sharp chest pains (often thought to be a heart attack), dizziness, and coughing blood. If the pulmonary condition is not immediately treated, it can be fatal. There are approximately 600,000 cases of pulmonary embolisms annually, ten percent of which result in death.

C. Public Awareness

Due to the increased media coverage in the late 1990s, the traveling public has become increasingly aware of effects of these blood clots and the development of Economy Class Syndrome. Much of this awareness has come after the sudden death of a twenty-eight year-old woman, who suddenly collapsed after departing her twenty-hour flight from Sydney, Australia to London's Heathrow Airport. The traveling public's concern of the condition was further sparked after the realization that Economy

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5. See id.
6. Id.
7. Id.
8. Id.
Class Syndrome can affect individuals who are otherwise healthy. This became a reality when three Olympic athletes who were traveling to the 2000 Summer Games in Australia developed DVT, and subsequently suffered from Economy Class Syndrome after their flight to Australia. Due to the extensive flight distances, often in excess of fifteen hours, the majority of Economy Class Syndrome claims are from flights emanating to or from the far-east countries such as Australia, Japan, and New Zealand.

As a result of the public’s concern and the recent global recognition of Economy Class Syndrome, the commercial air carrier industry has begun to address the issue of passenger related Economy Class Syndrome claims. Several of the major commercial air carriers are now informing passengers of the possibilities of Economy Class Syndrome and educating them on how to reduce their risk of developing DVT blood clots during long flights. These preemptive measures include advising passengers to get up and walk to the restroom during a flight and having flight crews demonstrate stretching exercises that will increase the passengers’ blood flow to their legs. In addition, several commercial air carriers have started including warnings on their tickets and advising passengers of the possibility of developing DVT during prolonged flights.

II. BACKGROUND

The medical condition DVT was first described in the 1940s during World War II, when physicians began noticing an increase in pulmonary embolisms among people who spent extended periods of time crouched in air-raid shelters during the London “Blitz.” In the post-World War II

10. Squash Star Saved By Her Fitness, EVENING NEWS (Scotland), Feb. 13, 2001, available at WL 6108780 (suffering from economy class syndrome, doctors tell a squash player that if she wasn’t a professional athlete she wouldn’t be alive at all).


13. Both the increased awareness of the medical condition and the public’s perception of DVT.

14. See Airlines to Attend Summit on Economy Class Syndrome, AP NEWSWIRE, Feb. 4, 2001 (stating that a summit addressing recent deaths attributed to economy class syndrome will be attended by airline executives from Qantas, Virgin, Air New Zealand and British Airways, and also by aviation regulators, doctors and pilot unions).

15. Salazar, supra note 9.

16. Id.

17. Interview by Tom Brokaw with Stanley Mohler, Ph.D., Wright State’s Aerospace Medicine Chair, Wright State University School of Medicine, in Dayton, Ohio, (Oct. 23, 2000) at http://www.med.wright.edu/whatsnew/spotlight.html.
years, DVT has been almost unheard-of by the general and traveling public. One of the reasons DVT has remained a relatively obscure condition among travelers is that doctors who treat the passengers often misdiagnose the condition due to the symptom's resemblance to other, more common, medical conditions.  

Although Economy Class Syndrome can affect otherwise healthy individuals, there are several well-known risk factors that may increase an individual's chance of developing DVT. Individuals have an increased chance of developing blood clots and suffering from Economy Class Syndrome if they "have a history of blood clots, cancer, prolonged bed rest following orthopedic surgery, recent treatment involving general anesthesia, estrogen therapy, obesity, and cigarette smoking." These factors, combined with the prolonged travel in a stationary position, contribute to a traveler's possibilities of suffering from Economy Class Syndrome.

III. AIR CARRIER LIABILITY--THE WARSAW CONVENTION

The Warsaw Convention is the governing rule of law that protects air carrier passengers traveling on international routes. Since the inception of the Warsaw Convention, international aviation has undergone great expansion. International flights have become a common event and travelers who are seeking to embark on this form of transportation often have numerous carriers to choose from, many of which are not based within the United States. Due to this industry expansion, the Warsaw Convention has undergone numerous changes to keep it current. It is well established that when the courts interpret a treaty, they are to give the language of the treaty the same meaning as the contracting parties do to the treaty.

To briefly mention jurisdiction under the Warsaw Convention, the Warsaw Treaty as adopted by Congress clearly states that under the Treaty, "resort to local law is precluded only where the incident is covered

18. Id.
19. Id.
21. See El Al Israeli Airlines v. Tsui Yuen Tseng, 525 U.S. 155, 167 (1999) (explaining that a ratified treaty is not only the law of the land, but also an agreement among sovereign powers).
22. Diederiks-Verschoor, supra note 3, at 57.
by Article 17." This means local law is precluded where there has been a passenger accident, either on the plane or in the course of embarking or disembarking, which led to death, wounding, or other bodily injury. In addition, the Warsaw Treaty precludes passengers from bringing actions under local laws when they cannot establish air carrier liability under the treaty. The courts have held that the Warsaw Convention is the exclusive basis of recovery for injuries that fall under the Convention, meaning the Warsaw Convention preempts all claims based on state law. However, "[t]he Warsaw Convention does not preempt local law in cases arising out of [an air carrier's] willful misconduct."

The court in the following passage, as it relates to air carrier liability, described the scope of the Warsaw Convention:

The Warsaw Convention establishes that the treaty applies to all international transportation of persons, baggage, or goods performed by aircraft for hire, Ch. I, Art. 1(1); describes three areas of air carrier liability, Ch. III, Arts. 17 (bodily injuries suffered as a result of an 'accident . . . on board the aircraft or in the course of any of the operations of embarking or disembarking'), 18 (baggage or goods destruction, loss, or damage), and 19 (damage caused by delay); and instruct that cases covered by article 17 can only be brought subject to the conditions and limits set out in the Convention.

The specific language of the Warsaw Convention that allows for commercial air carrier liability is this:

The carrier shall be liable for damages sustained in the event of death or wounding of a passenger or any other bodily injury suffered by a passenger, if the accident which caused the damage so sustained took place on board the

24. Id. at 155 (precluding passengers from bringing actions under local law when they cannot establish air carrier liability under the treaty).
27. In re Air Disaster at Lockerbie Scotland, 928 F.2d 1267 (2d Cir. 1991).
28. See El Al Israeli Airlines, 525 U.S. at 178 (stating in Article 25 that a carrier shall not be entitled to avail itself of the provisions of the Convention if its misconduct is willful).
29. Id. at 155.
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aircraft or in the course of any of the operations of embarking or disembarking the aircraft.\(^{30}\)

Article 25 of the Warsaw Convention removes the air carrier from the protections of limited liability provided by the Convention when the conduct of the air carrier is "willful misconduct" by stating:

In the carriage of passengers and baggage, the limits of liability specified in Article 22 shall not apply if it is proved that the damage resulted from an act or omission of the carrier, his servant or agents, done with intent to cause damage or recklessly and with knowledge that damage would probably result; provided that, in the case of a such act or omission of a servant or agent, it is also proved that he was acting within the scope of his employment.\(^{31}\)

Although the drafters of the Warsaw Convention were interested in protecting the passengers by creating consistent and uniform guidelines for air carrier liability, they were also interested in providing the air carrier with limited liability.\(^{32}\) The drafters therefore created a "fault based" liability with a "reverse burden of proof" which is placed on the air carrier.\(^{33}\) The drafters included several clauses that relieve the air carrier of liability. The first clause states the air carrier is not liable for a passenger injury if it has "taken all necessary measures to avoid the damage."\(^{34}\) Secondly, an air carrier is not liable if it was impossible for it to take such measures.\(^{35}\) The third scenario that removes the air carrier's liability is when the passenger's negligence was a contributing factor in causing the injuries.\(^{36}\) However, in what can be rationalized as a "good faith" provision, the drafters included a powerful provision that punishes air carriers who deliberately or recklessly place passengers at risk.\(^{37}\)

The Warsaw Convention also places restrictions on the monetary damages passengers can claim.\(^{38}\) The courts have followed these

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32. DIEDERIKS-VERSCHOOR, supra note 3, at 57.
33. See id. at 68 (explaining that the burden of proof lies on the carrier shoulders in exchange for the passengers losing the benefit of unlimited liability of the carrier).
34. Warsaw Convention, Oct. 12, 1929, art. 20, 49 Stat. 3019.
35. DIEDERIKS-VERSCHOOR, supra note 3, at 69.
restrictions by holding that punitive damages are not permitted under the terms of the Warsaw Convention; rather, only compensatory damages are recoverable.39

Although the air carriers have limited liability, the liability standard is that of strict liability that cannot be contracted away.40 The Warsaw Convention voids "any [contract] provision tending to relieve the carrier of liability or to fix a lower limit than that which is laid down in the Convention."41 To further protect the passenger from "willful misconduct" by the air carrier, the Warsaw Convention voids the limited liability enjoyed by the air carrier if it is determined by the court that the damages are caused by the air carrier's "willful misconduct."42

A. Elements of Liability

The Warsaw Convention has established specific elements that must be met for a tortious claim to be successful.43 These elements are: 1) an unexpected or unusual event, termed by the courts as an accident; 2) which results in death or bodily injury; 3) while either on board, embarking, or disembarking the aircraft.44

1. Accident

An "accident," as defined by Article 17 of the Warsaw Convention, is an "unexpected or unusual event or happening that is external to the passenger."45 Courts have held that this definition should "be flexibly applied after assessment of all the circumstances surrounding a passenger's injuries."46 Courts have further held that air carriers may be held strictly liable for injuries to passengers that are proximately caused by risks inherent in air travel.47 The courts have held that it is not a prerequisite for

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39. See In re Disaster at Lockerbie Scotland, 928 F.2d 1267 (holding that the language in the context it was written, the law of contracting parties, subsequent interpretations, and the historical translation argue that the language establishes liability for compensatory damages only, and it would be inconsistent with the purpose of the Warsaw Convention to permit the recovery of punitive damages).


41. Id.

42. Warsaw Convention, Oct. 12, 1929, art. 25, 49 Stat. 3020.


44. Id.


46. Id.

47. See id. (finding airline was liable for damages sustained to a passenger's broken eardrum because the pressurization of an aircraft cabin falls within the normal operations of an aircraft).
liability that a claimant demonstrates a malfunction or abnormality in the operation of the aircraft.  

An "accident," as defined by the courts, is not limited to the initial injury suffered by the passenger. An accident may be an event that occurs after the initial injury, such as the failure of the air carrier's agents to render medical assistance after the initial injury or medical condition has occurred. Therefore, an air carrier may be held strictly liable for medical conditions that are caused by the air carrier's actions or lack thereof.

The courts have consistently held that an "accident" requires that a passenger's injury must be caused by an "unexpected or "sudden" event other than the normal operations of the aircraft. In the case of Economy Class Syndrome, the development of the embolism while seated onboard the aircraft does not constitute an "unexpected" or "sudden" event. Rather all passengers are aware of the approximate time, length, and seating conditions of their flight prior to boarding the aircraft. The court differentiates between the two causes by categorizing them as either "accidents" or "occurrences," the latter of which does not qualify as an unexpected or sudden event as intended by the Warsaw Convention. However, even if the courts do not recognize the development of a medical condition during the normal operations of the aircraft, they have recognized that the failure to provide assistance may establish a claim where the air carrier's agents fail to provide reasonable care to its passengers suffering from a medical condition.

2. Bodily Injury

When determining what constitutes bodily injury, a determination must be made between "physical injury" and "mental injury." The courts have provided us guidance in separating physical from mental injury by stating:

The claim must [be] predicate upon some objectively identifiable injury to the body. In addition, there must be some causal connection between the bodily injury and the 'accident.' In our view, this connection can be established

49. *See Seguritan*, 86 A.2d at 658 (holding that the accident was not the passenger's heart attack, rather it was the alleged aggravation of decedent's condition by the negligent failure of defendant's employees to render her medical assistance).
51. *Id.* at 406.
whether the bodily injury was caused by physical impact, by the physical circumstances of the confinement or by psychic trauma. If the accident . . . caused severe fright, which in turn manifested itself in some objective 'bodily injury,' then we would conclude that the [Warsaw] Convention's requirement of the causal connection is satisfied.53

Therefore, there may be a causal link between mental and physical injuries of the accident. If a causal link establishes that the physical injury resulted from the mental injuries, the plaintiff may be allowed to recover for the physical suffering caused by the accident.54 However, mental injuries are not recoverable, only damages that resulted from the physical injury may be recovered.55 The court relies on the ordinary meanings of the words in Article 17 to support the plaintiff's claims for a physical (bodily) injury.56

Economy Class Syndrome, by definition, is a physical condition where there is the development of blood clots within a passenger's extremities.57 The development of these blood clots may result in physical conditions such as chest pains, pain in the calf or leg, swelling of the leg or limb, shortness of breath, protracted surface veins and even death.58 By following the court's distinction between the physical and mental injuries, death is not necessary to constitute damage as long as there is some form of physical injury to the passenger. If there is no physical injury to the passenger, rather only a physical discomfort that does not escalate to an injury, such as chest pains, there is no recoverable damage as defined by the court. Although a mental condition may occur from a passenger's temporary physical discomfort, unless that mental condition is the contributing cause of a physical injury, there is no recoverable damages.59 A passenger would only be able to recover from the physical injury caused

54. Id.
55. Id. at 400.
56. See id. (explaining that the terms, in their ordinary meaning, will not support plaintiffs' claim that psychic trauma alone, or even the psychic trauma which caused the bodily injury, is compensable under the Warsaw Convention).
57. Pulmonary Embolism—What You Know May Save Your Life, supra note 4.
58. Andrew Demaria, Deep Vein Thrombosis Explained, (Feb. 2001), at http://www.cnn.com/2001/WORLD/asiapcf/01/24/dvt.medical/index.html (sudden death can occur a week to ten days after the thrombosis is formed as a result of the pulmonary embolism).
59. A man who honestly believes he is suffering from a heart attack, and possibly death, may very well suffer some form of mental injury as a result of that belief.
by Economy Class Syndrome, whether that physical injury is a primary result of the Economy Class Syndrome physical injury, or a secondary injury where the mental injury resulted in a subsequent physical injury to the passenger. This would also include cases in which the temporary discomfort condition escalated into a physical injury.

3. Onboard, Embarking, Disembarking the Aircraft

Air carriers are only liable to passengers who are within specific areas that are under the carriers’ control. These areas are onboard the aircraft, embarking the aircraft, or disembarking the aircraft. One of the problems a plaintiff faces in establishing a valid Economy Class Syndrome claim is establishing the actual location in which the condition developed. The effects of the blood clots often are not discovered until after the passenger has left the airport, sometimes days after.

In order for the blood clots to develop, the passenger must be in a stationary position for an extended period of time. It would be highly unusual for a passenger to develop DVT while embarking an aircraft unless there was an extended timeframe (fifteen plus hours) of stationary condition prior to this action. It can be held that, under the doctrine of res ipsa loquitur, the Economy Class Syndrome facts speak for itself in that the only reasonable incubator for the development of these blood clots is in the extended seated position onboard the aircraft.

B. Reckless Disregard—Article 25

Air carriers have followed their drive for increased profit margins at the expense of passenger safety. Many air carriers have reduced seat pitch to “shoehorn” more passengers onto their aircrafts. An example of this is that in the 1980s, all USAir 727-200 aircraft were equipped with 145 seats. The same model aircraft in 1994 was equipped with 163 seats. During the same period, United Airlines increased its DC-10-30’s capacity by adding five rows of seats. This increased the number of seats on the

60. *Air France*, 470 U.S. at 394.
65. *Id.*
aircraft from 232 to almost 300. When TWA removed four of the seats from a 141-seat MD-80 to accommodate their passengers’ legroom, it resulted in an $87,603 annual loss in revenue for that aircraft. Multiply this by hundreds of aircrafts in a carrier’s fleet, and it is easy to see how cost plays a major factor in passenger safety.

Air carriers have drastically shortened the legroom of passengers. What is referred to as the “pitch,” the spacing between the front of one seat and the back of the seat preceding it, has decreased during the late 1980s from thirty-four (34) inches to just thirty-one (31) inches. Coach seats, which had a typical pitch of twenty-two (22) inches in 1993, decreased to approximately nineteen (19) inches in 1994. This constitutes the airline’s willful disregard for the passenger’s safety in the name of greater load factors for the aircraft.

C. Trier of Facts

In a claim made by a passenger, the complaint must be construed in the light most favorable to the plaintiff and construed as true. A complaint should not be dismissed “unless it appears beyond a reasonable doubt that the plaintiff can prove no set of facts in support of his claim that would entitle him to the requested relief.” In the event of personal injury to a passenger where there is contradictory evidence, it is for the trier of fact to determine if an accident has occurred. In determining if an accident occurred or if there was a willful and disregard for passenger safety, there are defenses available to the air carrier that will hold them not liable for damages.

D. Air Carrier Defenses

1. Preexisting Conditions

The courts have held that the definition of an “accident” under the Warsaw Convention is to be construed flexibly and a passenger only needs to prove “that some link in the [causal] chain was an unusual or

67. Id.
68. McCarthy, supra note 64.
69. Id.
71. Id.
unexpected event external to the passenger." The courts have further held that injuries that are a result of a preexisting condition do not constitute an accident as defined by the Warsaw Convention, even if there was a causal link provided by the negligent actions of the air carrier staff.

2. Preventive Measures to Avoid Accident

The Warsaw Convention provides a clause to protect air carriers who take the preventive steps to protect their passengers’ well-being. An air carrier is not liable for injury to its passengers if “he and his employees have taken all necessary measures to avoid the damage, or if it was impossible for him, or them, to take such measures.” It is up to the discretion of the trial judge to determine what actions actually constitute “necessary measures.”

E. Statute of Limitations

There is a two-year statute of limitations for claims arising under the Warsaw Convention. This limitation is established in Article 29 of the convention which states:

(1) The right to damages shall be extinguished if an action is not brought within 2 years, reckoned from the date of arrival at the destination, or from the date on which the aircraft ought to have arrived, or from the date on which the transportation stopped. (2) The method of calculating the period of limitation shall be determined by the law of the court to which the case is submitted.

The courts have held that the two-year time limitation is a “condition precedent” which bars the party’s right to bring a claim if the “action precedent” which bars the party’s right to bring a claim if the action is not

73. Id. at 392.
74. Fischer, 623 F. Supp. at 1065 (finding failure to treat passenger suffering from a heart attack was not an “accident” for which liability could be imposed under the Warsaw Convention).
75. DIEDERIKS-VERSCHOOR, supra note 3, at 69.
76. Id.
77. Id.
78. Seguritan, 86 A.D.2d at 658 (finding a complaint served more than two years after plane arrived at destination was barred by the statute of limitations).
79. Id. at 659 (citing Warsaw Convention, art. 29).
The statute of limitations begins to run upon the arrival at the destination or on the date that the aircraft was scheduled to arrive, or on the date that the transportation actually stopped. The laws of the court in which the action is filed determine which method is used to calculate the timeframe.

IV. CONCLUSION

The Warsaw Convention requires that a passenger's claim of injury meet three conditions: 1) accident, and 2) bodily injury, while 3) onboard, embarking, or disembarking the aircraft. Economy Class Syndrome, while occurring onboard the aircraft and resulting in physical injury, does not qualify as an "accident" under the Warsaw Convention. Rather than the passenger's physical injury occurring as a result of an unexpected event, the blood clots develop during what is considered the "normal" practice of remaining seated during the flight. The physical injury is not a result of a sudden or unusual event as required by the courts, and therefore Economy Class Syndrome does not meet the elements of a tort as defined by the Warsaw Convention.

It is not the contention of this article to redefine the courts' definition of an "accident." Rather it is this article's contention that the air carriers, through their long-time practices of decreasing seat pitch and failing to warn passengers of the foreseeable development of DVT blood clots, results in what can be termed only as a reckless disregard for the passengers' safety. The result is the removal of the air carrier from the protection of the Warsaw Convention as stated in Article 25 of the Convention. Removing the limited liability status of the air carrier who fails to take reasonable measures to prevent Economy Class Syndrome will hold the air carriers liable for damages suffered by their passengers.

81. Id. at 698-99.
82. Id. at 699.