

# Pierre Budin (1846-1907) <sup>[1]</sup>

By: Rebovich, Kelsey

Pierre Constant Budin worked in France to improve the lives of newborns and their mothers during the late nineteenth century. Budin stressed the importance of proper nutrition in infants and educated new mothers on breastfeeding and infant care. Budin established infant care facilities and created a nutritional check-up system for infants. Budin helped design early artificial nipples, breast pumps, and incubators for premature newborns. He also began the practice of consulting with new mothers after they gave birth, redefining the roles of obstetricians.

Budin was born to farmers on 9 November 1846 in Énencourt-le-Sec near Beauvais, France. Budin attended the Collège de Beauvais, a middle school in Beauvais, France, which at the time was a catholic convent renovated into a boarding school for boys. From 1865 to 1867, Budin studied at Lycée Napoléon, a high school where he received a baccalaureate degree in philosophy. In 1867, Budin began medical school in Paris, France, at the institution that later became part of the Paris 6 University. In 1872, while a part-time resident at the Hôpital de la Charité in Paris, Budin married Marie-Thérèse Sasles.

In 1874, Budin began a fellowship in Edinburgh, Scotland, where he studied with Joseph Lister. Lister was a surgeon who promoted antiseptics, the practice of sterilizing surgical instruments and cleaning wounds to reduce post-operative infection. As a fourth-year resident, Budin visited obstetricians in Britain and Germany before returning to Paris in 1875. There he began working under the supervision of Stéphane Tarnier at the hospital Maternité Port-Royal in Paris. Tarnier was responsible for implementing the use of infant incubators in that hospital and Budin requested special services in the form of more comfortable beds for pregnant women, striving to improve maternity ward standards.

During his fourth year of medical residency, Budin published "La ligature du cordon Ombilical" (The Ligation of the Umbilical Cord) in which he discussed the experiments Tarnier had performed at the hospital Maternité. Tarnier had measured and collected blood from the [placenta](#) <sup>[2]</sup> depending on whether he cut the [umbilical cord](#) <sup>[3]</sup> immediately after delivery or several minutes after. Tarnier advised Budin to delay cutting the [umbilical cord](#) <sup>[3]</sup> to allow time for blood from the [placenta](#) <sup>[2]</sup> to flow into the infant. In 1876, Budin presented his own research on the [umbilical cord](#) <sup>[3]</sup> in his doctoral thesis, "De la tête du foetus au point de vue de l'obstetric" (The head of the fetus <sup>[4]</sup> from the standpoint of Obstetrics) and earned his medical degree. Two years later, Budin became an associate professor within the school of medicine in Paris.

In 1885, at the age of thirty-eight, Budin suffered from serious health problems which required surgery. In 1889, the French Academy of Medicine elected Budin as a member. During the early 1890s, infantile diarrhea, caused by bottle-feeding [cow](#) <sup>[5]</sup>'s milk to infants, contributed to infant mortality, often because the milk had not been properly pasteurized. Budin insisted that breast milk from women was superior to milk substitutes for infants unless they couldn't breastfeed. In 1892, Budin founded a system of clinics at the Hôpital de la Charité that supervised the care of infants after discharge from maternity hospitals. Budin established consultations in which he met with new mothers and encouraged them to breastfeed and to monitor their infants' weights. To encourage regular attendance for consultations, Budin provided mothers with economic incentives and gifts.

Budin designed several items for new mothers and their infants. Budin designed a rubber nipple and developed a smaller version for infants with low birth weight who were unable to suckle. For women with premature infants, Budin created an apparatus that pumped milk from the breast, making breast milk more accessible for infants who were unable to suckle. Budin, together with obstetrician Joseph Chavanne, gave two presentations on the results of maternal education and the [sterilization](#) <sup>[6]</sup> of milk at the French Academy of Medicine in 1893.

1895, Budin returned to the Hospital Maternité and became chairman of obstetrics, a chair that Tarnier had previously held. He developed the first specialized infant-care center including a pavilion for premature infants and infants who were small for gestational age. In 1897, Tarnier died and Budin took over his work. The following year, Budin became professor of obstetrics at the medical school and director of the Tarnier Clinique, which was later grouped into the Hôpital Cochin in Paris. He also became a member of the French Academy of Medicine in Paris.

In 1898, in addition to working as an obstetrician, Budin founded the Obstetrical French Society in Paris. Budin also became an honorary member of the London Obstetrical Society in London, England, the Edinburgh Obstetrical Society in Edinburgh, Scotland, and the Boston Obstetrical Society in Boston, Massachusetts. Additionally, Budin founded the *Journal L'Obstetrique* (Journal of Obstetrics) and became the corresponding editor of the *American Journal of Obstetrics and Gynecology* in France.

In 1900, Budin published his most popular work titled *Le Nourrisson* (The Nursing), a compilation of ten lectures addressed to his students on the methods he found successful in preserving the lives of infants. Budin co-founded the League Against Infant Mortality in Paris 1902 and introduced an effective approach to perinatal care, which many physicians adopted. By 1905, twenty-eight medical institutions in Paris had implemented his system. Budin spent the last years of his life traveling to give talks at medical conferences. Budin contracted influenza and pneumonia at a conference in Marseille, France, and died on 22 January 1907 at age 66.

## Sources

- Baker, Jeffrey P. *The Machine in the Nursery: Incubator Technology and the Origins of Newborn Intensive Care*. Baltimore: Johns Hopkins University Press, 1996.
- Baker, Jeffrey. "The Incubator and the Medical Discovery of the Premature Infant." *Journal of Perinatology* 5 (2000): 321–8. <http://www.nature.com/journal/v20/n5/pdf/7200377a.pdf> <sup>[7]</sup> (Accessed November 5, 2015).
- Ballantyne, Josh William. "Hospital Treatment of Morbid Pregnancies: Pierre Budin" *The Transactions of the Edinburgh Obstetrical Society*. Edinburgh: Oliver & Boyd: Publishers to the Society, 1908: 11–3. <https://archive.org/stream/transactionsedi19socigoog#page/n45/mode/2up> <sup>[8]</sup> (Accessed February 11, 2017).
- Budin, Pierre. "A Quel Moment Doit-on Pratiquer la Ligature du Cordon Ombilical?" [At What Moment Should One Ligate the Umbilical Cord?]. *Progrès Médical* (1886): 1–31. <http://gallica.bnf.fr/ark:/12148/bpt6k5804760v> <sup>[9]</sup> (Accessed November 5, 2015).
- Budin, Pierre. *Obstétrique et gynécologie: recherches cliniques et expérimentales*. [Obstetrics and gynecology: clinical and experimental research]. Paris: Doin, 1886. <https://play.google.com/store/books/details?id=NxEpAAAAYAAJ&rdid=book-NxEpAAAAYAAJ&rdot=1> <sup>[10]</sup> (Accessed February 8, 2017).
- Budin, Pierre. *The Nursing: The Feeding and Hygiene of Premature & Full-term Infants* London: Caxton, 1907. <https://archive.org/details/b21686701> <sup>[11]</sup> (Accessed November 5, 2015).
- Dunn, Peter M. "Professor Pierre Budin (1846–1907) of Paris, and Modern Perinatal Care." *Archives of Disease in Childhood* 73 (1995): 193. <http://fn.bmj.com/content/73/3/F193.full.pdf> <sup>[12]</sup> (Accessed November 5, 2015).
- Holt, Emmett. "Infant Mortality, Ancient and Modern: An Historical Sketch." *American Association for Study and Prevention of Infant Mortality Transaction of the Fourth Annual Meeting*. (1913): 24–54. [https://books.google.com/books?id=dXE3AQAAAMAAJ&pg=RA1-PA24&lpg=RA1-PA24&dq=Infant+Mortality,+Ancient+and+Modern:+An+Historical+Sketch&source=bl&ots=TdFk0wFk3c&sig=76lhu\\_ZsXGxRIIPBcvPsM8fa1AI&hl=en&sa=X&ved=0CCqQ6AEwAmoVChMliWtWOI0b6yAIkmCh24IQxnfv=onepage&q&f=false](https://books.google.com/books?id=dXE3AQAAAMAAJ&pg=RA1-PA24&lpg=RA1-PA24&dq=Infant+Mortality,+Ancient+and+Modern:+An+Historical+Sketch&source=bl&ots=TdFk0wFk3c&sig=76lhu_ZsXGxRIIPBcvPsM8fa1AI&hl=en&sa=X&ved=0CCqQ6AEwAmoVChMliWtWOI0b6yAIkmCh24IQxnfv=onepage&q&f=false) <sup>[13]</sup> (Accessed November 5, 2015).
- Tarnier, Stéphane. "Des soins à donner aux enfants nés avant terme." [Care for pre-term infants]. *Archives de Tocologie: maladies des femmes et des enfants nouveau-nés* [Archives of Obstetrics: Diseases of Newborns and Women]. 48 (1885): 819–825. <http://gallica.bnf.fr/ark:/12148/bpt6k65341796/f829.item.zoom> <sup>[14]</sup> (Accessed February 11, 2017).
- Toubas, Paul and R Nelson. "The Role of the French Midwives in Establishing the First Special Care Units for Sick Newborns." *Journal of Perinatology* 22 (2002): 75–7. <http://www.nature.com/journal/v22/n1/full/7210621a.html> <sup>[15]</sup> (Accessed November 5, 2015)

Pierre Constant Budin worked in France to improve the lives of newborns and their mothers during the late nineteenth century. Budin stressed the importance of proper nutrition in infants and educated new mothers on breastfeeding and infant care. Budin established infant care facilities and created a nutritional check-up system for infants. Budin helped design early artificial nipples, breast pumps, and incubators for premature newborns. He also began the practice of consulting with new mothers after they gave birth, redefining the roles of obstetricians.

## Subject

[Budin, P. \(Pierre\), 1846-1907](#) <sup>[16]</sup> [Breastfeeding](#) <sup>[17]</sup> [Tarnier, S. \(Stephane\), 1828-1897](#) <sup>[18]</sup> [Premature infants](#) <sup>[19]</sup> [Breast milk](#) <sup>[20]</sup> [Fetus](#) <sup>[21]</sup> [Obstetrics](#) <sup>[22]</sup> [Hopital de la charite \(Paris, France\)](#) <sup>[23]</sup> [Diarrhea, Infantile](#) <sup>[24]</sup> [Milk–Pasteurization](#) <sup>[25]</sup> [Umbilical cord–Ligature](#) <sup>[26]</sup> [Maternal and infant welfare](#) <sup>[27]</sup> [Incubators \(Pediatrics\)](#) <sup>[28]</sup>

## Topic

[People](#) <sup>[29]</sup> [Reproduction](#) <sup>[30]</sup>

## Publisher

Arizona State University. School of Life Sciences. Center for Biology and Society. Embryo Project Encyclopedia.

## Rights

Copyright Arizona Board of Regents Licensed as Creative Commons Attribution-NonCommercial-Share Alike 3.0 Unported (CC BY-NC-SA 3.0) <http://creativecommons.org/licenses/by-nc-sa/3.0/>

## Format

[Articles](#) <sup>[31]</sup>

## Last Modified

Wednesday, July 4, 2018 - 04:40

## DC Date Accessioned

Sunday, February 12, 2017 - 01:10

## DC Date Available

Sunday, February 12, 2017 - 01:10

## DC Date Created

2017-02-11

## DC Date Created Standard

Saturday, February 11, 2017 - 07:00

- [Contact Us](#)

© 2019 Arizona Board of Regents

- The Embryo Project at Arizona State University, 1711 South Rural Road, Tempe Arizona 85287, United States

---

**Source URL:** <https://embryo.asu.edu/pages/pierre-budin-1846-1907>

## Links

- [1] <https://embryo.asu.edu/pages/pierre-budin-1846-1907>
- [2] <https://embryo.asu.edu/search?text=placenta>
- [3] <https://embryo.asu.edu/search?text=umbilical%20cord>
- [4] <https://embryo.asu.edu/search?text=fetus>
- [5] <https://embryo.asu.edu/search?text=cow>
- [6] <https://embryo.asu.edu/search?text=sterilization>
- [7] <http://www.nature.com/journal/v20/n5/pdf/7200377a.pdf>
- [8] <https://archive.org/stream/transactionsedi19sociogoo#page/n45/mode/2up>
- [9] <http://gallica.bnf.fr/ark:/12148/bpt6k5804760v>
- [10] <https://play.google.com/store/books/details?id=NxEpAAAAAYAAJ&amp;rdid=book-NxEpAAAAAYAAJ&amp;rdot=1>
- [11] <https://archive.org/details/b21686701>
- [12] <http://fn.bmj.com/content/73/3/F193.full.pdf>
- [13] [https://books.google.com/books?id=dXE3AQAAAAAJ&pg=RA1-PA24&pg=RA1-PA24&dq=Infant+Mortality,+Ancient+and+Modern:+An+Historical+Sketch&source=bl&ots=TdFK0wFk3c&sig=76lhu\\_ZsXGxRIIPBcvPsM8fa1Al&hl=en&sa=X&ved=0CCgQ6AkmCh24Qxn#v=onepage&q&f=false](https://books.google.com/books?id=dXE3AQAAAAAJ&pg=RA1-PA24&pg=RA1-PA24&dq=Infant+Mortality,+Ancient+and+Modern:+An+Historical+Sketch&source=bl&ots=TdFK0wFk3c&sig=76lhu_ZsXGxRIIPBcvPsM8fa1Al&hl=en&sa=X&ved=0CCgQ6AkmCh24Qxn#v=onepage&q&f=false)
- [14] <http://gallica.bnf.fr/ark:/12148/bpt6k65341796/f829.item.zoom>
- [15] <http://www.nature.com/journal/v22/n1/full/7210621a.html>
- [16] <https://embryo.asu.edu/library-congress-subject-headings/budin-p-pierre-1846-1907>
- [17] <https://embryo.asu.edu/library-congress-subject-headings/breastfeeding>
- [18] <https://embryo.asu.edu/library-congress-subject-headings/tarnier-s-stephane-1828-1897>
- [19] <https://embryo.asu.edu/library-congress-subject-headings/premature-infants>
- [20] <https://embryo.asu.edu/library-congress-subject-headings/breast-milk>
- [21] <https://embryo.asu.edu/library-congress-subject-headings/fetus>
- [22] <https://embryo.asu.edu/library-congress-subject-headings/obstetrics>
- [23] <https://embryo.asu.edu/library-congress-subject-headings/hopital-de-la-charite-paris-france>
- [24] <https://embryo.asu.edu/library-congress-subject-headings/diarrhea-infantile>
- [25] <https://embryo.asu.edu/library-congress-subject-headings/milk-pasteurization>
- [26] <https://embryo.asu.edu/library-congress-subject-headings/umbilical-cord-ligature>
- [27] <https://embryo.asu.edu/library-congress-subject-headings/maternal-and-infant-welfare>
- [28] <https://embryo.asu.edu/library-congress-subject-headings/incubators-pediatrics>
- [29] <https://embryo.asu.edu/topics/people>
- [30] <https://embryo.asu.edu/topics/reproduction>
- [31] <https://embryo.asu.edu/formats/articles>