A polyurethane foam mattress or pillow overlay for a mattress that prevents plagiocephaly by allowing a recess in a mattress pad or pillow for the Baby's head to protrude backwards while lying flat on its' back instead of lying against a flat surface. An over-mattress, foam mattress pad, or pillow, the support assembly comprising a shaped rubber foam cradle for a baby's head and/or baby's head and body covered with a mattress cover or pillowcase composed of comfortable quilted cloth material.
FIG. 2

3 Mattress

2. Well for Body

1 Well for Head
FIG. 3

1 Well for Head

3 Mattress/Pillow
BABY HEAD PILLOW MATTRESS PAD

FIELD OF THE INVENTION

[0001] The invention relates to an apparatus and the use of the apparatus to prevent positional plagiocephaly by more evenly distributing loads on the head of an infant lying on a sleep surface in the supine position.

BACKGROUND OF THE INVENTION

[0002] Cranial asymmetry (plagiocephaly) and deformations may occur from various causes including premature closure of the cranial vault and/or skull base sutures (craniosynostosis), syndromal craniofacial dysostosis, intracranial volume disorders such as hydrocephalus, microcephaly or tumor, metabolic bone disorders such as rickets, and birth trauma such as depressed skull fractures.

[0003] Plagiocephaly is characterized by unilateral occipital flattening with contralateral occipital bulging or, a flat spot at the back of the infant’s head which makes the baby’s head look square. As the deformation becomes more severe there is ipsilateral forehead protrusion, contralateral forehead flattening and endocranial skull base rotation with anterior displacement of the ipsilateral ear. If not prevented this is a deformity that remains the shape of the person’s head their entire life.

[0004] There has been an increase of infants diagnosed with plagiocephaly corresponding to the “Back-to-Sleep” campaign by the American Academy of Pediatrics (AAP), recommending that infants be placed in the supine (lying on the back) sleeping position in an effort to decrease the incidence of sudden infant death syndrome (SIDS) resulting in a decrease correlated with a 15-20% decrease in the incidence of SIDS. SIDS is the leading cause of early infantile deaths in the United States. Approximately 6,000 infants die of this syndrome each year, an incidence of 1.2 deaths per 1,000 live births.

[0005] Infants more than three months of age and those who have not responded to repositioning are placed in an individually tailored cranial molding helmet. The helmet is a custom fitted apparatus that is designed to apply continuous pressure to the cranium. This apparatus has proved to be very effective in allowing the growing brain to reshape the still-malleable cranium. It is applied continuously and removed only for bathing until the child is twelve months old. After twelve months of age or if the deformity is severe, molding helmets are of little value and surgical cranial recontouring is required.

[0006] Positional plagiocephaly is preventable by manipulation of the infant’s head. It is this desired to provide a method and apparatus which prevents plagiocephaly in infants and thus removes a potentially debilitating side effect from the well known measure of putting an infant to sleep on its’ back to prevent SIDS.

BACKGROUND AND SUMMARY OF THE INVENTION

[0007] The recessed concave cavities of this baby mattress pad are designed to prevent plagiocephaly—malformation in the shape of a baby’s head from sleeping in the supine position.

[0008] It is well known to provide foam support pads or mattresses for supporting a user reclining on a pad. For example, U.S. Pat. Nos. 4,879,776; 5,038,433; 5,077,849; 5,111,542; and 5,172,439, all to Farley, disclose mattress overlays and pads for supporting a user and U.S. Pat. Nos. 4,424,600 and 4,435,864 to Callaway, disclose supporting surfaces having selectively adjustable firmness.

[0009] A pillow and mattress structure in accordance with the present invention is suitable to use on top of the standard baby mattress and may be modified to include only the head portion used as a pillow.

[0010] The mattress further includes a mattress cover comparable to a quilted pillowcase.

SUMMARY OF THE INVENTION

[0011] The invention is directed to a method and apparatus that prevents positional plagiocephaly in infants by spreading out over a defined range in a recessed cavity the load that is placed on an infant’s head when the infant lies on his or her back on a sleep surface. The method is safe, inexpensive, and is easy to use.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] The detailed description particularly refers to the accompanying figures in which:

[0013] FIG. 1 shows the recessed cavities hollowed out of the form to hold the baby’s body and head in a position where the baby can lay on its’ back and not flatten out the cranial bones of the back of the head. It is shown without the pillow mattress pad cover.

[0014] FIG. 2 is a side cutout view showing the cavities in the foam from a right angle.

[0015] FIG. 3 is a shortened version of the Baby Head Mattress Pad used as a pillow.

DETAILED DESCRIPTION OF THE INVENTION

[0016] FIG. 1 shows the cavity in the mattress for the head 1 and body 2 in a full perspective view. The mattress surface 3 is broadly defined to encompass any mattress surface on which the infant is placed in the supine position in a sleeping or waking state. The sleep surface 3 may thus include a mattress pad, a pad including only the length of the baby or a pillow 4 with just the cavity for the baby’s head.


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[0020] Reiser et al., Cranial Asymmetry in Infants: Is the Increased Incidence Related to the “Back to Sleep” Campaign?, University of Louisville School of Medicine, Perinatal Coordinating Center, vol. XXIV, No. 8, Aug. 1997.


What is claimed is:

1. An engineered foam pillow or mattress overlay for a baby mattress, the support assembly comprising:

A polyurethane foam pillow mattress cushion overlay with indented recessed body cavity depressions for the major parts of a baby’s body or in the case of just the pillow, the baby’s head. Drawing #1 shows the Baby Head Pillow Mattress Pad showing the baby’s head and body recessed using the pad with recessed cutout portions of a mattress pad. Pediatricians currently recommend putting babies to sleep on their backs to prevent Sudden Infant Death Syndrome. The purpose of the recessed portions in the foam mattress overlay is to prevent a baby’s head from flattening out in the back when the baby is laid down on its’ back thereby preventing the baby’s head from flattening out in the back and looking like a square head otherwise known as positional plagiocephaly.

Using it as a mattress cushion it is comprised of polyurethane foam having an indentation load deflection of 1 to 20 pounds, and being from about two to about four inches in thickness, and generally the same length and width as, but substantially thinner than, a conventional baby mattress. The mattress overlay is preferably sized to fit standard cribs, with a length of approximately 52 inches, a width of approximately 24 inches, and a thickness of approximately four inches. Variations of shortening the mattress pad and using just the head portion for a pillow could be any size that comfortably cradles the baby’s head. Ordinarily the pad and the pillow would be used with a washable fabric cover. The cushion and the fabric cover could be portable.

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